

Applying Artificial Intelligence in the Classroom EDUO 9349 1 Semester Credit/Unit

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Course Syllabus

Course Overview:

Apply AI to your teaching and to enhance student learning. Experience first-hand the value of AI Chats to develop curriculum and for research. Gain an understanding of how AI chatbots can build a base for creativity, curriculum development and personalized learning. Utilize a phased modification and redefinition process to personalize AI generated content. Learn the importance of verifying resources and following responsible digital citizenship and content ownership policies. Familiarize yourself with AI applications to classroom learning. The course will use AI tools, including ChatGPT, Microsoft Bing. User accounts will be required.

Course Learning Objectives: In this course, participants will have opportunity to:

- Learn how Artificial Intelligence programming can support and enhance teaching and learning
- Engage in the use of two AI Chats applications to experience and reflect on their values to professional development and personalized learning
- Align Responsible Digital Citizenship and Content Ownership Policies to AI use
- Reflect on the benefits of AI use in education and necessary guidance by teachers

Course Relation to CCS or other Professional Standards

ISTE
National and State Standards
STEM/STEAM

How to Submit Coursework

Each completed assignment in this course is submitted to the instructor for review. Follow directions at the end of each assignment on how to prepare and submit your assignments. Name each file submitted with your last name and assignment number (i.e. BrownAssignment3. Make sure you place your full name, course number and assignment number at the top of each document page. You will receive feedback from your instructor within 5 days indicating successful completion of the assignment or the need for revision. Assignment grades will be averaged for the final course grade.

Submit completed work to the corresponding Module dropboxes in Moodle

Learning Modules / Assignments

(Before proceeding familiarize yourself with the **Course Resources** and **Addendum**)

March 2023 Survey: Teachers and Students Embrace ChatGPT for Education

Module 1 Al's Present and Future		
Objective	Gain an understand of where we are with AI being used in and out of education and its future in both areas.	
Assignment(s) Include Activities and Needed Materials	its future in both areas. Parts 1 through 6 below should be compiled into one document. The content is a compilation of resources presented in the assignment on Al's present and future in classrooms K-12 and life outside. 1. Link to Al is for Everyone, Everywhere A. View Making Al an Essential Topic in Your Classroom (Webinar) Create a two-paragraph reflection B. View Why Al is Important for All Students Create a 1 paragraph reflection. 2. Watch PBS Crash Course Artificial Intelligence Reflect in 1 to 2 paragraph your thoughts 3. Listen to This YouTube Star Says Al Will Become a Creative 'Collaborator' With Students Reflect in 1 to 2 paragraph your thoughts 4. Read Unlocking the Power of Personalized Learning With Trustworthy Al and Advanced Analytics The speaker discusses Al as a transformative use of technology. List the pros and cons you picked up from her interview. 5. Read How will artificial intelligence impact K-12 education in the United States? the values Al can bring to education and to the future generation of learners. 6. Al Is Changing the Workforce. At This District, It's Changing the Curriculum Too. Reflect in 1 to 2 paragraph your thoughts Submit Module 1 assignment to the LMS or share via Drive.	
	<u>iherzdominicancourses@gmail.com</u>	
Assessment	Assessment will be based on the Course Rubric in this document.	

Wiodaic 2 Cicati	ng with AI Chat using ChatGPT and Office
Objective	Learn to use and research with 2 AI Chat systems Users of AI Chat must verify what AI bots provide. As a phase of AI learning, validating content will help prevent false conclusions from being drawn. A) A complete lesson plan on a topic of your choice using AI Chat. B) A report on a single subject of your choice using AI Chat
	Link to the Resources in this document for ChatGPT and Office Bing home and tutorials
Assignment(s) Include Activities and Needed Materials	A) Using ChatGPT or Office Bing, (link here for "how to locate and use both) enter a prompt asking it to create a lesson or full unit plan on a topic in your area of education. The topic needs to be a broad topic, i.e. "The Westward Movement 5 th grade"
	You can talk to ChatGPT like it is a personal assistant, the same way you might talk to your smartphone or an Al music device, "Send a reminder to xxx to meet me at 3:30." "Play all the songs by xxxxx".
	(The results of the Western Movement 5 th grade example search topic using ChatGPT and Microsoft's Bing, are shown in the course Example 1 ChatGPT .
	In a word processing document, place your findings and the resulting end product in this manner to show how you would utilize content from the Chat Bot.
	Phase 1 – Decide on a topic/learning objective/standard or other item you would like ChatGPT to assist with. Enter the learning objective into the chat window. The objective can be in the form of a complete sentence/question. Examples: "I need to a lesson plan (or unit) on"; "What is the best way to How do I" "What is/are the" "Why do", etc. Experiment to see what works best. You may want to add to the search with a follow-up question on the same topic. Your search will be saved under your account.
	Phase 2 - Copy the search results, unedited, along with the prompt you entered, onto a Word or Drive document that you will submit for the assignment. If Drive, share and notify me at iherzdominicancourses@gmail.com
	Phase 3 – Beneath your Phase 2 content, edit the search results to fit your normal style of writing and creating assignments or projects. Please keep the Phase 2 content in place. Here you want to Cite GPT or Bing usage. Look at Module 3 for citing information.
	Phase 4 – Create a final assignment from the results that show a refined and personalized application of the original content. The assignment can be in documen or Slides (PPT) format. Student using this phase could create a Google Form quiz for the teacher to review or use other quiz apps (https://www.canva.com/create/quizzes/.
	Phase 5 – Reflect on the value of using ChatGPT or Bing.

	B) Follow the same 5 Phases as in A. Use ChatGPT or Bing for a research paper you need to submit to your professor in a college course you are taking. Example: "I have to write a research paper on the impact of chemicals used for farming in the United States during the last 100 years." It needs to be 6 pages long and source five different primary sources."
	Submit Module 2 Parts A to the LMS or share via Drive. jherzdominicancourses@gmail.com
Assessment	Assessment will be based on the Course Rubric in this document.

Module 3 Aligning Responsible Digital Citizenship and Content Ownership Policies to AI use		
Objective	Maintaining Copyright, Fair Use and Ethical Responsibility when using information sourced online.	
Assignment(s) Include Activities and Needed Materials	Assignment: Create a 2-page document or an equally comprehensive Slide/PPT on the topic of student responsibility to cite and respect ownership of content when sourced online in AI Chat sites. The assignment should reflect any guidelines your school or district has provided on the topic, uses of AI Chat sites and student responsibility for its use. Your goal is to create guidelines on the topic even if your students are not allowed to use AI tools for sourcing content. Aim your concerns, pros and cons, to your school board or a group of parents. Resources: Chat GPT - How To Write An Essay With References And Citations How to cite ChatGPT (apa.org) How to Cite ChatGPT and AI in MLA Format ChatGPT Citations Formats & Examples Generative AI - Copyright Overview Part 1 (this takes a deep dive) Other Resources, Points of View. (These few resources are provided to provide a tip of the iceberg-outlook on the ongoing controversy of Chat Bot usage in school. This assignment remains focused on the ethical practices to cite resources and respect ownership regardless of the source.) Perspective Teach middle school students to use AI chatbots for good Parents Are Open to AI Use in Schools. But They Have a Lot of Questions Schools look to ban ChatGPT, students use it anyway Submit Module 3 assignment to the LMS or share via Drive. jherzdominicancourses@gmail.com	
Assessment	Assessment will be based on the Course Rubric in this document.	

Module 4 Chatbots Results are not Equal			
Objective	Discover that different chatbots "think" and present results uniquely.		
Assignment(s) Include Activities and Needed Materials	Pages 6-14 show the results from three different AI chatbot's – ChatGPT, Microsoft Bing and Google Bard, when presented with the same prompt - I need to create a PowerPoint on the westward migration in the United States for 5th grade. Compare the results from the three AI chatbots. Create a comparison document or Sheet that details the differences you notice. Consider the organization, details, content value and any need to research further given the prompt used for the search. Submit Module 4 assignment to the LMS or share via Drive. iherzdominicancourses@gmail.com		
Assessment	Assessment will be based on the Course Rubric in this document.		

Module 5 Conclusion			
Objective	Your thoughts on the use of AI chatbots and other uses of AI in schools		
	Before proceeding with this assignment, engage in the <u>Addendum</u> resources to get a broader look at how AI is impacting education now and how it will into the future.		
Assignment(s) Include Activities and Needed Materials	Create a single-spaced, 1-2 page document or an equally comprehensive Slide/PPT, video or Podcast on your professional views about use of AI in K-12 education Refer to a few specific or broad Addendum items that cover other AI uses besides chatbots.		
	Submit Module 5 assignment to the LMS or share via Drive. <u>iherzdominicancourses@gmail.com</u>		
Assessment	Assessment will be based on the Course Rubric in this document.		

End of Course Assignment Modules

Course Resources:

31 Incredible AI Tools for Education

<u>Unlocking the Potential of K-12 Students with ChatGPT: How AI Could Transform Education – SULS0184</u>
<u>The Muse of the 21st Century: Generative AI</u>

Coming Soon - <u>Introducing Stretch, a new Chatbot created exclusively for Schools.</u>

ChatGPT

ChatGPT Home

> <u>ChatGPT Tutorial: How to Use Chat GPT For Beginners 2023</u>
How to use ChatGPT to do research for papers, presentations, studies, and more

Bing

Bing home

How to use the new Bing Chat

Bard (not required for use in this course but Google Drive/Classroom users should look at how it will partner with Google applications)

Bard home

What is Google Bard? Here's everything you need to know

Addendum

- How K-12 Schools Can Use Artificial Intelligence in Education
- 43 Examples of Artificial Intelligence in Education
- Understanding the Role of Artificial Intelligence in Education & Language Learning (uses Mondly)
- TED Talks on Al
- Hour of AI: Alexa in Space Project STEM Curriculum AI Videos: Voice AI Basics Understanding the AI in Alexa
- ChatGPT in the classroom: Here's what teachers and students are saying
- ISTE and Al Artificial Intelligence in education Putting Educators and Students in the Driver's Seat
- <u>AL for Good</u> Providing technology and resources to empower organizations working to solve global challenges to the environment, humanitarian issues, accessibility, health, and cultural heritage. (Intel)
- https://boredhumans.com/ (try a few items)
- https://ai4k12.org/activities/

Below: Example Chat Results (GPT; Bing; Bard) Page 6 – 15 contain the results of the same query to 3 different chatbots. Note the difference in content returned how to dive a little deeper into an AI chat to gather information by asking for more information on key points.

ChatGPT

Query entered: I need to create a PowerPoint on the westward migration in the United States for 5th grade

Results: Creating a PowerPoint presentation on the Westward Migration in the United States for 5th graders is a great idea to make the topic engaging and educational. Here's a simple outline for your presentation:

Slide 1: Title

Title: "Westward Migration in the United States"

Your Name

Slide 2: Introduction

Briefly introduce the topic and its importance.

Slide 3: What is Westward Migration?

Define what westward migration means.

Mention the time period (e.g., 19th century).

Slide 4: Reasons for Westward Migration

Explain the various reasons people moved westward, including economic opportunities, land, and the promise of a better life.

Slide 5: The Louisiana Purchase

Discuss the purchase of the Louisiana Territory from France in 1803.

Show a map of the territory.

Slide 6: The Lewis and Clark Expedition

Explain the purpose and goals of the Lewis and Clark Expedition.

Include images of Lewis and Clark.

Slide 7: The Oregon Trail

Describe the Oregon Trail, its starting and ending points

Mention its significance and challenges.

Slide 8: The California Gold Rush

Talk about the discovery of gold in California and the rush of people to the West.

Include pictures of gold miners.

Slide 9: The Transcontinental Railroad

Explain the importance of the Transcontinental Railroad in westward expansion.

Include images of trains and railroad construction.

Slide 10: The Homestead Act

Discuss how the Homestead Act of 1862 encouraged settlement in the West.

Include images of homesteaders.

Slide 11: Life on the Frontier

Describe the challenges faced by pioneers on the frontier, such as Native American conflicts, harsh weather, and isolation.

Slide 12: Conclusion

Summarize the key points of your presentation.

Slide 13: Q&A

Invite the students to ask questions.

Slide 14: Additional Resources

Provide a list of books or websites for further reading.

Slide 15: Thank You

Thank the students for their attention and any other closing remarks.

Slide 16: Credits

Give credit for any images or information used in your presentation.

Ensure that your slides are visually engaging with relevant images, maps, and minimal text. Use bullet points or short sentences to keep the information accessible to 5th graders. Practice your presentation to make it engaging and informative for the students.+

End of ChatGPT Results

Bing Results

Same Query (I need to create a PowerPoint on the westward migration in the United States for 5th grade) Reply:

- The Clever Teacher has a comprehensive Westward Expansion Unit for 5th grade and middle school students. It includes 15 detailed lesson plans, worksheets, answer keys, and activities completely ready to go. The unit covers topics such as Manifest Destiny, Lewis and Clark Expedition, U.S. Territorial Acquisitions, Westward Expansion Trails, Oregon Trail Simulation, Indian Removal, Texas Revolution, and Westward Expansion and Slavery.
- <u>KidsKonnect</u> provides a brief overview of the Westward Expansion. It covers topics such as the Louisiana Purchase, the Oregon Trail, and the Homestead Act.
- <u>Core Knowledge</u> has a unit on Westward Expansion before the Civil War at a fifth-grade level. Students research, discuss, and analyze events stated in the Core Knowledge Sequence.
- <u>The Clever Teacher</u> also has a free Westward Expansion Map activity that includes a detailed lesson plan and task cards.

I hope these resources help you create an engaging PowerPoint presentation on the Westward Migration in the United States for your 5th-grade students! Let me know if you need any further assistance.

End of Bing Results

Bard

Same Query (I need to create a PowerPoint on the westward migration in the United States for 5th grade)

But this time each topic from the initial search's Outline was entered to bring in new information, building a more detailed amount of data to create the PowerPoint – 6 pages of results with supporting sub-research and images. The results are more than enough data, presented within minutes, to ignite the development of the presentation.

Bard Reply:

Creating a PowerPoint on the Westward Migration in the United States for Fifth Grade

When creating a PowerPoint on the westward migration in the United States for fifth grade, it is important to keep the audience in mind. Fifth graders are still developing their reading and comprehension skills, so it is important to use simple language and visuals. The PowerPoint should also be engaging and interactive, to keep students interested in the topic.

Here are some tips for creating a PowerPoint on the westward migration in the United States for fifth grade:

- Start with a strong introduction. This should grab the students' attention and introduce the topic of the PowerPoint. For example, you could start with a question, such as "Why did people move west?" or "What challenges did people face on the westward journey?"
- **Use clear and concise language.** Avoid using jargon or technical terms. If you must use a technical term, be sure to define it.
- **Use visuals to support your text.** Visuals can help students to understand the topic better. For example, you could use maps to show the different routes that people took to the west, or images of the different types of transportation that people used.
- **Make your PowerPoint interactive.** This will help to keep students engaged and interested in the topic. For example, you could include quiz questions, activities, or games in your PowerPoint.

Here is a possible outline (provided by Bard) for a PowerPoint on the westward migration in the United States for fifth grade: (each of the Bard reply topics below were reentered into Bard to get further information)

- Introduction
- What challenges did people face on the westward journey?
- Different routes to the west
- Why did people move west?
- Types of transportation
- Life on the frontier
- Conclusion

Here are some additional tips for creating a successful PowerPoint:

- Use a consistent design. This will make your PowerPoint look more professional and polished.
- Use a variety of fonts and colors. This will help to keep your PowerPoint visually interesting.
- Use images and videos that are relevant to your topic. Avoid using too many images or videos, as this can be distracting.
- **Proofread your PowerPoint carefully before presenting it.** This will help to ensure that there are no errors in grammar or spelling.

Finally, remember to have fun! Creating a PowerPoint can be a great way to learn about the westward migration in the United States.

Query: What challenges did people face on the westward journey?

People faced many challenges on the westward journey, including:

- **Disease:** Disease was a major killer on the westward journey. Common diseases included cholera, dysentery, and measles. These diseases were often spread through contaminated water or food.
- **Extreme weather:** The weather on the westward journey could be extreme, with hot summers, cold winters, and high winds. This could make the journey difficult and dangerous.
- **Difficult terrain:** The terrain on the westward journey could be difficult, with mountains, deserts, and rivers. This could make the journey slow and challenging.
- Lack of food and water: Food and water could be scarce on the westward journey. This could make it difficult for people to stay healthy and hydrated.
- **Wild animals:** Wild animals, such as bears, wolves, and snakes, could be a danger to people on the westward journey.
- **Conflict with Native Americans:** Native Americans often resisted the westward expansion of the United States. This led to conflict between settlers and Native Americans.

In addition to these challenges, people on the westward journey also faced social and emotional challenges. They were often leaving behind their families and friends, and they were moving to a new and unfamiliar place. This could be a difficult and stressful experience. Despite the challenges, millions of people made the westward journey in the United States. They were motivated by a variety of factors, including the desire for a better life, the promise of economic opportunity, and the belief in Manifest Destiny.

Query: Different routes to the west

There were many different routes to the west during the westward migration in the United States. Some of the most common routes included:

• **Oregon Trail:** The Oregon Trail was a 2,000-mile route that ran from Independence, Missouri, to Oregon City, Oregon. It was the most popular route for settlers heading to the Pacific Northwest.



Oregon Trail map

• California Trail: The California Trail was a 2,000-mile route that ran from Independence, Missouri, to Sacramento, California. It was the most popular route for settlers heading to the California Gold Rush.



California Trail map

Mormon Trail: The Mormon Trail was a 1,300-mile route that ran from Nauvoo, Illinois, to Salt Lake
City, Utah. It was the route used by Mormon settlers to escape religious persecution and build a new
community in the west.



Mormon Trail map

• Santa Fe Trail: The Santa Fe Trail was a 900-mile route that ran from Independence, Missouri, to Santa Fe, New Mexico. It was a trade route that was used to transport goods between the United States and Mexico.





Santa Fe Trail map

Other routes to the west included the Old Spanish Trail, the Gila River Trail, and the Southern Emigrant Trail.

The different routes to the west varied in difficulty and length. The Oregon Trail and California Trail were the most difficult routes, as they crossed mountains, deserts, and rivers. The Mormon Trail and Santa Fe Trail were easier routes, but they were still challenging.

No matter which route people chose, the westward journey was a difficult and dangerous one. Travelers faced many challenges, including disease, extreme weather, difficult terrain, and a lack of food and water. However, millions of people made the journey, seeking a better life in the west.

Query: Why did people move west?

Types of transportation

People used a variety of types of transportation to travel west during the westward migration. The most common types of transportation included:

• Wagons: Wagons were the primary mode of transportation for most settlers. They were pulled by horses, oxen, or mules. Wagons could carry a large amount of supplies, but they were slow and difficult to maneuver.



Opens in a new window $W_{\underline{en.wikipedia.org}}$ Covered wagon

Handcarts: Handcarts were used by some Mormon settlers who could not afford to buy wagons. Handcarts were lighter and easier to maneuver than wagons, but they were also more difficult to pull.





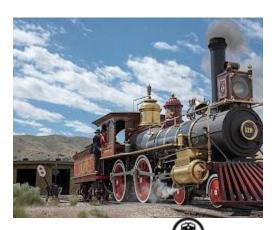
Mormon handcart

Steamboats: Steamboats were used to travel on rivers and lakes. They were a faster and more comfortable way to travel than wagons, but they were also more expensive.



Opens in a new window $W_{\underline{en.wikipedia.org}}$ Steamboat

Trains: Trains were the fastest way to travel west, but they were also the most expensive. Trains were not available until the later part of the westward migration.



Opens in a new window <u>www.trains.com</u>

In addition to these main types of transportation, people also used other modes of transportation, such as horseback riding, walking, and sailing.

The type of transportation that people used depended on a variety of factors, including their budget, the route they were taking, and the time of year. For example, people who were traveling on the Oregon Trail or California Trail typically used wagons. People who were traveling on the Mormon Trail or Santa Fe Trail sometimes used handcarts. People who were traveling to the west coast by boat typically took a steamboat from New York or New Orleans. And people who were traveling to the west coast by train typically took the Transcontinental Railroad from Omaha, Nebraska.

The westward migration was a challenging and dangerous journey, but people were willing to make the journey in search of a better life. The different types of transportation that people used helped to make the journey possible.

Query: Life on the frontier

Life on the frontier was difficult and challenging. Settlers had to be self-sufficient and resourceful in order to survive. They had to build their own homes, grow their own food, and protect themselves from wild animals and Native Americans.

Here are some of the challenges that settlers faced on the frontier:

- Lack of supplies: Settlers often had to travel long distances to get supplies. This could be difficult and dangerous, especially in the winter.
- **Extreme weather:** The weather on the frontier could be extreme, with hot summers, cold winters, and high winds. This could make it difficult to grow crops and raise livestock.
- **Wild animals:** Wild animals, such as bears, wolves, and snakes, could be a danger to settlers and their livestock.
- **Conflict with Native Americans:** Native Americans often resisted the westward expansion of the United States. This led to conflict between settlers and Native Americans.

Despite the challenges, life on the frontier also had its rewards. Settlers had the opportunity to own their own land and build a new life for themselves. They also had the chance to experience the beauty and wildness of the American frontier.

Here are some of the rewards of living on the frontier:

- Land ownership: Settlers had the opportunity to own their own land. This was a dream come true for many settlers, who had not been able to afford land in the east.
- A new start: Settlers had the chance to build a new life for themselves on the frontier. They could choose their own way of life and create their own community.
- Adventure: Life on the frontier was full of adventure. Settlers had the opportunity to explore new lands and experience the beauty of the American wilderness.

Life on the frontier was not easy, but it was a time of great opportunity and adventure. Settlers who were willing to face the challenges were rewarded with the chance to own their own land, build a new life for themselves, and experience the American wilderness.

Here are some examples of what life was like for settlers on the frontier:

- **Homes:** Settlers often lived in simple cabins or log houses. They built their own homes from the materials that were available, such as trees and mud.
- **Food:** Settlers grew their own food or hunted for wild game. They also preserved their food by drying it, salting it, or smoking it.
- **Clothing:** Settlers often made their own clothing from animal skins or fabrics that they brought with them from the east.
- **Work:** Settlers worked hard to build and maintain their farms and homes. They also spent time hunting, fishing, and gathering firewood.
- Education: Settlers often educated their children at home or in one-room schoolhouses.
- **Community:** Settlers often relied on each other for help and support. They formed communities where they could share resources and work together to overcome the challenges of life on the frontier.

Life on the frontier was a challenging but rewarding experience. Settlers who were willing to face the challenges were rewarded with the chance to own their own land, build a new life for themselves, and experience the American wilderness.

End of the 3 Chatbot's Results for the query:

I need to create a PowerPoint on the westward migration in the United States for 5th grade.

Course Assessment Rubric:

Using the Course Assessment Rubric shell below, create a <u>course-specific rubric</u> that helps guide students to success. Reference course objectives and assignments to help guide students.

EXCELLENT	ACCEPTABLE	NOT ACCEPTABLE
Meets or Exceeds Course Objectives: A to A- All work submitted reflects in-depth	Majority of Work Meets Course Objectives; B+ to B- Most work submitted reflects in-depth	Needs Considerable Improvement: Resubmit Work Suggested: C or below Work shows little or no in-depth
understanding of course objectives.	understanding of course objectives.	understanding of course objectives.
Assignment responses show evidence of new knowledge evidenced by thoughtful, detailed and accurate assignment responses. Work submitted was organized and clearly articulated. The student carefully followed all assignment instructions. The instructor did not have to provide continual assignment clarification or request revisions.	Most assignment responses show evidence of new knowledge evidenced by thoughtful, detailed and accurate assignment responses. Most work submitted was organized and clearly articulated. The student carefully followed all assignment instructions. The instructor had to provide continual assignment clarification or ask for revisions.	Responses show little to no evidence of new knowledge as evidenced by lack of thoughtful, detailed and accurate assignment responses. Work submitted was not organized or not clearly articulated. The instructor had to provide constant clarification and ask for continued revisions.
Assignment content and required projects were original.	Assignment content and required projects were original.	Evidence that not all assignment content and required projects were original.
Work is free of spelling and/or grammatical errors.	Work has few spelling and/or grammatical errors.	Work has numerous spelling and/or grammatical errors.