

AI Integration in Education

EDCI 59100/EDCI 55201
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Instructor

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Teaching Assistants

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Instructors' Online Hours

Dr. Huang, Wonjin Yu, and Seoljoo Kang will be available via email and will respond as soon as they are available (generally within 24-48 hours). For the online discussions, the instructors will check in at least 3 times per week. Keep in mind that it is impossible for the instructor to respond to every posting every week (nor is it pedagogically appropriate). If you feel you are being neglected in any way or want to ensure a response to a particular post, don't hesitate to get in touch with the instructors.

Course Website

Brightspace is our course management system. You can access the course website at purdue.brightspace.com. It is strongly suggested that you explore and become familiar not only with the site navigation, but with content and resources available for this course.

Course Description

This course aims to provide students with the knowledge and skills needed to understand and utilize Generative AI in education. Students will acquire fundamental coding skills and develop technical expertise in using and comprehending AI. By engaging in hands-on activities and analyzing real-world case studies, students will design and create their own AI applications using Google Teachable Machine to solve a specific problem of their choosing. Additionally, the course will examine ethical issues related

to AI/GenAI, allowing students to establish guidelines for the meaningful integration of AI/GenAI in teaching and learning.

NOTE: The AI certificate offered by the College of Education requires successful completion of this course as a prerequisite. While the certificate program is currently in development, it is essential for students to achieve a grade of B- or higher in order to qualify for the certificate once it is established and available.

Course Instructional Goals

Through the successful completion of the course, learners will be able to:

- Define AI/GenAI and discuss its potential integration into education
- Create an innovative AI/Gen application using Google Teachable Machine
- Develop a learning activity using GenAI that caters to different learning preferences and needs.
- Analyze and discuss the ethical issues surrounding the use of AI, specifically GenAI, in education from the perspectives of both learners and educators

Course Readings and Resources (subject to revision)

Required Text: None

Course Readings and resources are provided/posted on the course website.

Assignments

We will have a number of discussions and assignments throughout the semester. Details on these assignments, along with rubrics to guide evaluation, and guidelines on discussion participation and evaluation, will be posted on the course website.

Assignments	Points
Week 1 Discussion, Wednesday of Week 1, midnight EST	10
AI literacy self-assessment – Pre, Wednesday of Week 1, midnight EST	5
Critical Reflection Assignment, Sunday of Week 1, midnight EST	20
Week 2 Discussion, Wednesday of Week 2, midnight EST	10
Week 3 Discussion, Wednesday of Week 3, midnight EST	10
Week 4 Discussion, Wednesday of Week 4, midnight EST	10
Week 5 Discussion, Wednesday of Week 5, midnight EST	10
Week 6 Discussion, Wednesday of Week 6, midnight EST	10

Assignments	Points
Week 6 Assignment – Gen AI Learning Activity, Sunday of Week 6, midnight EST	100
Week 7 Discussion, Wednesday of Week 7, midnight EST	10
Week 8 Discussion, Wednesday of Week 8, midnight EST	10
AI literacy self-assessment – Post, Wednesday of Week 8, midnight EST	5
Total	210

Synopsis of Course Assignments

Discussions: Weeks 1 – 8 (10 pts each/100 pts total)

Active participation is a must in this course. Each week, one or more key discussion questions, activities, debates, etc., will be posted. Generally, you will be required to respond to the main discussion and then also make comments (a minimum of 2 or 3) on the responses of others in the course. Please note that the quantity of responses is not as important as the quality of the responses. You are highly encouraged to be concise and clear with your postings.

A running dialogue about course topics will be maintained via the Brightspace discussion forums. It is expected that you will fully participate in the online discussions. This means posting your own thoughts about the weekly topics, commenting on others’ ideas, and responding to questions about your own postings. You are encouraged to respond to different peers’ posts to get to know your peers and expand your interactions with them.

Class participation points will be based more on quality than quantity. While it is relatively easy to post numerous, non-substantive comments, it takes more thought and effort to post intelligent, meaningful comments that move the discussion forward. For example, meaningful posts tend to:

- Provide concrete examples, perhaps from your own experience
- Identify consequences or implications
- Challenge something that has been posted – perhaps by playing devil’s advocate
- Pose a related question or issue
- Suggest a different perspective or interpretation
- Pull in related information from other sources – books, articles, websites, courses, etc.

Consider your time commitment to our online discussions to be critical to your success as a learner, as well as to the success of the course. Because ongoing participation is expected, discussion scores will be based on three primary criteria:

1. Frequency and timeliness of postings
2. Content of your postings (the thoughtfulness/reflection that goes into your responses and the extent to which they address the topic for the week, including the assigned readings)
3. Adherence to the online protocol (see rubric on the course website)

Based on experience, you should spend approximately 2-3 hours online each week (reading and responding to others) and 10-15 hours offline, reading and completing course assignments.

A final guideline for postings: Make sure your posted comments are **CRISP**:

Considerate	You may have strong views and will want to express those views. That's great. But remember that others may have equally strong views that are the polar opposite of your views. Feel free to question, challenge, or disagree with anything in the discussion, but do so in a respectful, considerate way.
Reflective	An asynchronous discussion may lack the spontaneity of a live discussion. But this can be an advantage. There is more time to think before responding. Take the time to think about the ideas that have been expressed (in the readings and the discussion) from the perspective of your own experience. Then add your own comments and insights.
Interactive	Remember that you're a participant in a discussion and talk with one another. Cut and paste parts of previous messages into your message. The idea is to be interactive , not just active.
Succinct	Get to the point. Short, focused message are usually more effective than long comments.
Pertinent	Comments and questions should be related to the discussion topic. There will be times when you want to talk with someone about something unrelated to the topic. That's fine, but this is not the place to do that. When you enter into a weekly discussion, please remember that you're in a classroom, not a chat room

Critical Reflection Assignment (20 pts)

You will submit a critical reflection on your week 1 hands-on learning activity, AI for Oceans. This will include writing a reflection of at least 300 words on this experience in light of the learning content and course discussions. Be sure to review the critical reflection rubric (What?, So what?, Now what?) before you start working on this assignment.

Gen AI Learning Activity Assignment (100 pts)

For this assignment, we would like to ask you to do the following. You can find detailed guidelines and grading criteria on the course website.

- Develop a lesson plan incorporating a Generative AI platform for a specific subject or topic of your choice. The potential learners can complete the learning activity within one hour or a class period (approximately 45-50 minutes)
- Ensure the activity includes clear objectives, required resources, and step-by-step instructions.
- Highlight how the GenAI platform will enhance the learning experience and cater to different learning preferences.

Grading Scale

Letter Grade	Percentage of Points
A	94 - 100% of points
A-	90 - 93% of points
B+	87 - 89% of points
B	84 - 86% of points
B-	80 - 83% of points
C+	77 - 79% of points
C	74 - 76% of points
C-	70 - 73% of points
D+	67 - 69% of points
D	64 - 66% of points
D-	60 - 63% of points

Course Policies

Assignment Due Dates

Deadlines are an unavoidable part of being a professional and this course is no exception. Avoid any inclination to procrastinate. To encourage you to stay on schedule, due dates have been established for each assignment. Late work will be treated as follows:

- 20% of the total points will be deducted for assignments received up to 1 day late,
- 40% of the total points will be deducted for assignments received 2-3 days late;
- 60% of the total points will be deducted for assignments received 4-7 days late;
- Assignments received more than 7 days (1 week late) will receive 0 points.
- Regardless of how many dates late, work should be turned in no later than Day 3 of Week 8.

Incompletes

A grade of Incomplete (I) grades will be given only in extenuating circumstances. To receive an “I” grade, a **written request must be submitted prior to the Friday of week 7** and approved by the instructor. The request must describe the circumstances, along with a proposed timeline for completing the course work. You will be required to fill out and sign an “Incomplete Contract” form that will be turned in with the course grades. Any requests made after the course is completed will not be considered for an Incomplete grade.

Prior Coursework

Students who would like to use components of previous coursework as part of an assignment may do so at the discretion of the instructor. Students in this position must first ask permission from the instructor and outline how the previous work will be incorporated into the current assignment.

Etiquette

Although it is not expected to be a problem in a graduate level class, students are asked to behave in the discussions and other class interactions in a professional and civil manner. If you are in doubt, do not post it! Instructors reserve the right to remove any postings deemed inappropriate, unprofessional, or otherwise distracting from the course.

Different Perspectives

Because this course considers a wide variety of theories, conceptual constructs, and explanations related to human development, you will very likely encounter positions and perspectives with which you do not necessarily agree, and which may run counter to your views of the world. It is important that you understand a broad variety of different explanations of how humans develop, interact, and make important decisions in their lives; but the adoption of any one position or explanation is not the purpose of this course.

Respect for Diversity

Purdue’s Learning Design and Technology program strives to include insights from diverse populations – including people with a variety of backgrounds and perspectives. While the instructional design field has a rich history of studying how technology can improve learning and performance, we must note “all cultures need to be studied and valued in the learning environment, because if they are not acknowledged or considered, there may be negative repercussions in the teaching and learning processes” (Brown & Dunn, 2021, para. 2). The LDT program has tried to create assignments with equity, flexibility, and variety in mind. If at any point you would like to consider or explore a different viewpoint (e.g., gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture) for an assignment or discussion, you are encouraged to do so. Please review assignment rubrics and guidelines if you have any concerns with how this focus aligns with assignment requirements and goals and reach out to your instructor for support if needed. Any suggestions regarding course readings or assignments are welcomed and appreciated.

Dunn, S., & Brown, V. (2021). Supporting diversity, equity, and inclusion for culturally diverse online learners. *Online Journal of Distance Learning Administration*, 24(4). Retrieved from https://www.westga.edu/~distance/ojdl/winter244/dunn_brown244.html

Research

For this class, the lead instructor conducts research on online learning, AI literacy, and community of inquiry. The goal of the research is to improve instruction. You will not be asked to complete any research activities beyond the normal learning activities and assignments that are part of this course. You are free not to participate in this research, and your participation will have no influence on your grade for this course/participation in this program or your academic career at Purdue. Participants will not receive any compensation. The data collected as part of this research may include student grades. All analyses of data from participants' coursework will be conducted after the course is over and final grades are submitted. The Center for Instructional Excellence (CIE) may provide support on this research project regarding data analysis and interpretation. CIE's mission is to advance and promote transformative, evidence-based instruction for academic success at Purdue and beyond. To minimize the risk of breach of confidentiality, CIE will never have access to data from this [course/program] containing your personal identifiers. If you have questions, comments or concerns about this research project or you would like to withdraw from this project, please contact Chantal Levesque-Bristol (clevesqu@purdue.edu) or Emily Bonem (ebonem@purdue.edu). To report anonymously via Purdue's Hotline, see www.purdue.edu/hotline If you have questions about your rights while taking part in the study or have concerns about the treatment of research participants, please call the Human Research Protection Program at (765) 494-5942, email (irb@purdue.edu) or write to: Human Research Protection Program – Purdue University, Ernest C. Young Hall, Room 1032, 155 S. Grant St., West Lafayette, IN 47907-2114.

Course Evaluations

You will receive an official e-mail from Purdue with a link to the online evaluation site. Your participation is an integral part of this course, and your feedback is vital to improving education at Purdue University. I strongly urge you to participate in the evaluation system.

PURDUE POLICY STATEMENTS

EMERGENCY STATEMENT

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. Any changes in this course will be announced on our course Website. Updates and emergency information will be posted on Purdue's home page as well as distributed through emergency text alerts (to sign up, go to the [emergency preparedness website](#)).

ACCESSIBILITY

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let me know so that we can discuss options. You are also encouraged to contact the Disability Resource Center

at: drc@purdue.edu or by phone: 765-494-1247. More information can be found in Brightspace under Student Help and Accessibility.

ACADEMIC INTEGRITY

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information is submitted the greater the opportunity for the university to investigate the concern. More details are available on our course Brightspace table of contents, under University Policies.

Please review [Purdue's Plagiarism Policy](#).

ARTIFICIAL INTELLIGENCE POLICY

Advancements in **Artificial Intelligence (AI)** provide students with unparalleled access to information and problem-solving capabilities. However, with these advantages come the responsibilities of ethical use and academic integrity. Guidelines for Responsible Use:

- **Original Work:** Students should ensure that assignments submitted are original and based on their understanding. While AI can assist in research or provide general guidance, it should not produce work on behalf of the student.
- **Citation:** Any content, ideas, or assistance obtained through AI tools must be appropriately cited, similar to any other reference or source.
- **Collaboration:** If a student collaborates with AI tools, they must specify the nature and extent of this collaboration in their submission. This includes providing details of the prompts used to generate the AI responses.
- **Prohibited Uses:** AI should not be used to complete quizzes, exams, or any other assessments unless explicitly permitted by the instructor.

Misuse of AI tools in coursework, which includes but is not limited to producing unoriginal work, uncited use of AI-generated content, or unauthorized assistance on assessments, will be considered a breach of academic integrity. Consequences will follow Purdue's policies on academic dishonesty, which may include grade penalties, course failure, or more severe disciplinary actions.

STUDENT HELP & SUCCESS

On the homepage for all your courses, under Announcements, is a Student Resources widget with direct links to Technology Help, Academic Help, Campus Resources, and timely items that may change based upon students' most urgent needs.

MENTAL HEALTH/WELLNESS STATEMENT

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try [WellTrack](#). Sign in and find information and tools at your fingertips, available to you at any time.

If you need support and information about options and resources, please contact or see the [Office of the Dean of Students](#). Call 765-494-1747. Hours of operation are M-F, 8 am- 5 pm.

If you find yourself struggling to find a healthy balance between academics, social life, stress, etc. sign up for free one-on-one virtual or in-person sessions with a [Purdue Wellness Coach at RecWell](#). Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is completely free and can be done on BoilerConnect. If you have any questions, please contact Purdue Wellness at evans240@purdue.edu.

If you're struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact [Counseling and Psychological Services \(CAPS\)](#) at 765-494-6995 during and after hours, on weekends and holidays, or by going to the CAPS office on the second floor of the Purdue University Student Health Center (PUSH) during business hours.

NONDISCRIMINATION STATEMENT

Purdue University is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. A hyperlink to Purdue's full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies.

COPYRIGHTED MATERIALS

Among the materials that may be protected by copyright law are the lectures, notes, and other material presented in class or as part of the course. Always assume the materials presented by an instructor are protected by copyright unless the instructor has stated otherwise. Students enrolled in, and authorized visitors to, Purdue University courses are permitted to take notes, which they may use for individual/group study or for other non-commercial purposes reasonably arising from enrollment in the course or the University generally.

Notes taken in class are, however, generally considered to be "derivative works" of the instructor's presentations and materials, and they are thus subject to the instructor's copyright in such presentations and materials. No individual is permitted to sell or otherwise barter notes, either to other students or to any commercial concern, for a course without the express written permission of the course instructor. To obtain permission to sell or barter notes, the individual wishing to sell or barter the notes must be registered in the course or must be an approved visitor to the class. Course instructors may choose to grant or not grant such permission at their own discretion, and may require a review of the notes prior to their being sold or bartered. If they do grant such permission, they may revoke it at any time, if they so choose.

INTELLECTUAL PROPERTY

Online educational environments, like all learning environments, should provide opportunities for students to reflect, explore new ideas, post opinions openly, and have the freedom to change those opinions over time. Students enrolled in and instructors working in online courses are the sole

proprietors of their work, opinions, and ideas. It is expected that other students will not copy, reproduce or post to any other outlet (e.g., YouTube, Facebook, or other open media sources) any work in which they are not the sole author or have not obtained the permission of the author(s). Based on the success of LTD graduates, students in this course will likely be or become K-12 or university instructional technologists, instructional designers, instructors or administrators, or corporate trainers. The open, public nature of these careers is certainly unavoidable; however, our online classroom is not an open “public forum”. Therefore, all opinions, ideas, and work conducted in a password-protected online educational environment like Blackboard are owned by the author, intended for educational purposes, and are not intended for public dissemination or consumption without the permission of the author(s). This includes all areas of the online academic environment, including, but not limited to email, papers, reports, presentations, videos, chats, blogs and discussion board posts.

ACADEMIC GUIDANCE IN THE EVENT YOU ARE QUARANTINED/ISOLATED

If you become quarantined or isolated at any point in time during the semester, in addition to support from the Protect Purdue Health Center, you will also have access to an Academic Case Manager who can provide you academic support during this time. Your Academic Case Manager can be reached at acmq@purdue.edu and will provide you with general guidelines/resources around communicating with your instructors, be available for academic support, and offer suggestions for how to be successful when learning remotely.

Importantly, if you find yourself too sick to progress in the course, notify Kristy Justice (ASAP) and notify me via email or Brightspace. We will make arrangements based on your particular situation. The Office of the Dean of Students (odos@purdue.edu) is also available to support you should this situation occur.

Course Schedule

Week	Topic	Assignment
1	<ul style="list-style-type: none"> What is AI? AI for Oceans 	<ul style="list-style-type: none"> Week 1 Discussion, Wednesday of Week 1, midnight EST AI Literacy Self-Assessment Pre, Wednesday of Week 1, midnight EST Critical Reflection Assignment, Sunday of Week 1, midnight EST
2	<ul style="list-style-type: none"> Google Teachable Machine 	<ul style="list-style-type: none"> Week 2 Discussion, Wednesday of Week 2, midnight EST
3	<ul style="list-style-type: none"> Teaching & Learning with GenAI 	<ul style="list-style-type: none"> Week 3 Discussion, Wednesday of Week 3, midnight EST

4-5	<ul style="list-style-type: none"> ● Personal Learning & Assessment with GenAI ● Designing GenAI Learning Opportunities 	<ul style="list-style-type: none"> ● Week 4 Discussion, Wednesday of Week 4, midnight EST ● Week 5 Discussion, Wednesday of Week 5, midnight EST
6	<ul style="list-style-type: none"> ● AI & Ethical Issues ● MIT Moral Machine 	<ul style="list-style-type: none"> ● Week 6 Discussion, Wednesday of Week 6, midnight EST ● Week 6 Assignment – Gen AI Learning Activity, Sunday of Week 6, midnight EST
7	<ul style="list-style-type: none"> ● Ethical Issues of AIED 	<ul style="list-style-type: none"> ● Week 7 Discussion, Wednesday of Week 7, midnight EST
8	<ul style="list-style-type: none"> ● The Future of Education 	<ul style="list-style-type: none"> ● Week 8 Discussion, Wednesday of Week 8, midnight EST ● AI Literacy Self-Assessment Post, Wednesday of Week 8, midnight EST

**Schedule, assignments, etc. are subject to change.*