Stanford Teacher Education Program

Graduate School of Education

Stanford University

Education 246I: *AI and Education for Future Teachers*

Foundations, Opportunities, Challenges, and Considerations

Times and Locations M-F, July 20-24 9:30a-11:30a Barnum	**Instructors** Victor Lee vrlee@stanford.edu Sarah Levine srlevine@stanford.edu Ira Lit iralit@stanford.edu
Course Credit: 1 Unit, Credit/No Credit ** NOTE: COURSE REGISTRATION AND CREDIT ARE FORMALLY ATTACHED TO *AUTUMN* QUARTER **	
Office Hours: Immediately following class and by appointment	

Course Description

Generative Artificial Intelligence, and edTech more broadly, are areas of growing interest and influence on the work of P-12 teachers and educational leaders. Our hopes for this mini-course are to begin exploring together some of the opportunities, puzzles, possibilities, and concerns around the AI/edTech space to better inform our work individually and collectively. As classroom teachers you will be charged to make informed decisions to support the growth and learning of your students,elevate the goals and flourishing of your students, and to support the broader aspirations you have about the impact of education on society. Deepening your knowledge, skills, and understanding of the complexities in this emerging and influential field will inform your judgements, perspectives, decisions, and actions involving AI and other educational technologies.

Course Learning Goals:

- Consider prior beliefs and opinions regarding AI in education and determine strategies for future AI use in the work of teaching
- Explore meaningful frameworks to support teachers to make sense of and make decisions around opportunities, challenges, and puzzles related to the rapid advancement of AI in education.
- Provide practical examples or exemplars of AI at work in education, that aligns with STEP's – and our students' – visions for equity-oriented and student-centered teaching and learning.
- Offer an opportunity for some engagement/play with AI tools to support and advance the professional learning for future teachers.
- Promote ongoing learning and sense-making throughout the STEP year around AI/edTech and Education

Attendance and Professional Educator Communication
We expect your thoughtful engagement and attendance at every one of the five summer workshop sessions. If you must be late or absent, please communicate your needs to the instructors prior to class, review materials on Canvas, and converse with a peer about what you missed. If you are absent from all or part of a class session, instructors may assign an alternative assignment to support you to engage with content missed in class.

Stanford Honor Code and Fundamental Standard
All Stanford students are expected to follow the **Stanford Honor Code** and **Fundamental Standard**, as noted in the STEP Handbook and Stanford Student Guide.

Accessibility
Access and Accommodations - Stanford is committed to providing equal educational opportunities for disabled students. Disabled students are a valued and essential part of the Stanford community. We welcome you to our class.If you experience disability, please register with the Office of Accessible Education (OAE). Professional staff will evaluate your needs, support appropriate and reasonable accommodations, and prepare an Academic Accommodation Letter for faculty. To get started, or to re-initiate services, please visit oae.stanford.edu. If you already have an Academic Accommodation Letter, we invite you to share your letter with us. Academic Accommodation Letters should be shared at the earliest possible opportunity so we may partner with you and OAE to identify any barriers to access and inclusion that might be encountered in your experience of this course. The OAE is located at 563 Salvatierra Walk (phone: 723-1066).

AI Course Policy
This is a course on AI and Education, and we encourage students to thoughtfully and wisely engage with these tools in appropriate ways. Here is some additional guidance to support your learning:

- You are encouraged when asked to use generative AI to use Stanford-approved AI tools whenever possible because they have been vetted for data security. The following platforms may be used for most prompts, materials, and data (except high risk data).
    - Stanford AI Playground
    - Google Gemini and NotebookLM (only when authenticated using your SUNet ID)
- Review and follow the guidelines provided in Stanford IT's resource on Responsible AI at Stanford.
- When using a third-party, non-Stanford-approved AI tool such as a personal ChatGPT account, make sure to check the fine print terms before signing up. Avoid inputting information that should not be made public. This includes personal or confidential information of your own or that others share with you, as well as proprietary or copyrighted materials that may be included in your coursework.
- Offer an acknowledgement of AI-use in produced materials (what AI resources you use, how you used them, etc.), in ways similar to offering appropriate citation for works referenced.

Course Calendar of Expected Topics and Readings

Please see Canvas to find the pre-work module for each of our course workshop sessions

Date	Workshop Focus	Readings & Assignments *(see Canvas for PDF versions of linked articles)*
1: MON 7/20	*Frameworks for Making Sense of AI and Education* In this session we will explore a meaningful framework to support teachers to make sense of and make decisions around opportunities, challenges, and puzzles related to the rapid advancement of AI in education. (UDC)	**READ**: course **SYLLABUS**. Bring your questions to class. **READ**: Lee & Long (2026). "AI literacy: Perspectives underlying an essential new digital literacy" (LINK) **READ**: Two essays elevating different viewpoints on the potential affordance and challenges with AI in an educational context: How AI Tools Are Really Being Used In Classrooms (Forbes, 2026) Opinion | The High Cost of Silent Classrooms (NYTimes, 2026)
2: TUES 7/21	*Demystifying AI: Understanding How AI Works, What it Can (and Cannot) Do* In this session we will peek "under the hood" a bit to better understand how AI actually works, which will offer us a better sense of what it might do well, what it can't really do at all, and where we should have confidence/concern about its output and impact.	**WATCH**: A few simple video "explainers" about What is AI? (LINK1) and What is Generative AI? (LINK2) and Large Language Models explained (LINK3) **PLAY/EXPLORE:** AI Quests (A game-based learning experience designed to teach middle school students about AI.) Spend a little time exploring this game-based learning experience designed to teach middle school students (ages 11-14) about AI. The resource is designed to offer interactive, code-free quests, for students to learn what it takes to responsibly build AI applications that address real-world societal challenges.
3: WED 7/22 **4: THURS**	*AI and EdTech at Work* In Sessions 3 and 4, we will explore tools and share working examples of AI in use towards various learning goals. We will welcome some special guests to share about their uses and	*There is no PRE-WORK necessary to support our work in Sessions 3 and 4.* Instead we would like to encourage you to read ahead for the required assignment for Session 5 (see below). In addition, this would be a good time to explore additional resources to support your learning journey: **EXPLORE:** This host of resources available to you at

7/23	learning journeys in engaging AI tools in support of teaching and learning. We'll unpack and evaluate what seems to be of value and what might seem awry or amiss based on our goals, values, and other important considerations.	Stanford: AI Tinkery, Stanford AI Playground, AI Hub for Education, CRAFT **REVIEW**: Create+AI Challenge for examples of current K12 educators innovating with AI to support a range of student learning goals. **EXPLORE/BOOKMARK**: HERE is a simple **Resource Guide** to support your learning and your curiosities around AI and Education for Future Teachers.
5: FRI 7/24	*AI Frameworks and Guidelines, EdTech beyond AI, Course Wrap Up & Beyond*	**EXPLORE**: ISTE and OECD framework (text on domains. pp 8, 25-27, 32-33, 36-37, 40-41); CA CDE Guidelines; Ohio Model K-12 AI Policy **READ:** The Ed-Tech Backlash is Here. (Ed-Week, 2026)