ED 325

Applications of Computers to Educational Purposes

<u>Instructor</u>

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Course Description:

Welcome to the fascinating and ever-changing world of education technology! ED 325 is an inquiry-driven course that seeks to help future teachers experience and understand the energy and ethos of today's technology-infused learning culture.

The primary goal is to prepare Credential Candidates to evaluate and use technology to support student learning. Throughout this course, you will learn how to locate, select, adapt and evaluate educational technology. Our objectives include the practice and understanding of how teachers:

1. Plan, design and implement valuable learning experiences using a variety of cutting-edge technology tools and practices
2. Provide secondary students with opportunities to use and evaluate the latest technology tools to differentiate and center their own learning
3. Become more alive and alert to the ways in which students are learning with these tools
4. Use technology to communicate and collaborate with diverse education audiences: students, colleagues, parents and education experts
5. Understand how technology choices impact pedagogy in the classroom and use this understanding to achieve the most effective outcomes

Assessment

This course revolves around your ongoing participation through blogging, class discussions, lab time, and other activities. Late assignments will affect your ability to learn alongside your classmates and might also affect your grade.

Grade	Assessment Task
25%	**Projects:** Digital projects will be started in class and will be completed and published to your online portfolio. Due dates are listed on the schedule. Bring your laptop and headphones/earbuds to every class.
25%	**Participation:** Your participation in discussions and group activities is fundamental to this class. In order to do this well you will need to complete all weekly readings and homework assignments.
25%	**Portfolio:** You will present your online digital portfolio in class on the last day. All your projects and any of your best tools and resources should be represented. A part of this portfolio will also include a useful resource guide with at least 10 resources and info on how you might use them.
25%	**Written Reflections and Weekly Presentations:** You will be asked to participate in written reflection and evaluation throughout the course, and respond to your peers' reflections. Additionally, you will be asked to present a new tech tool to your peers.

Teaching Performance Expectations

TPE 1: Engaging and Supporting All Students in Learning	1.4 Candidates will use a variety of developmentally and ability-appropriate instructional strategies, resources, and assistive technology, including principles of Universal Design of Learning (UDL) and Multi-Tiered System of Supports (MTSS) to support access to the curriculum for a wide range of learners within the general education classroom and environment. **Assignments:** Tech Tool Presentation, Digital Inquiry, Flipped/Blended Lesson, Assistive Technology
TPE2: Creating and Maintaining Effective Environments for Student Learning	2.2 Create learning environments (i.e., traditional, blended, and online) that promote productive student learning, encourage positive interactions among students, reflect diversity and multiple perspectives, and are culturally responsive. **Assignments:** Flipped/Blended Lesson
TPE 3: Understanding and Organizing Subject Matter for Student Learning	3.6 Use and adapt resources, standards-aligned instructional materials, and a range of technology, including assistive technology, to facilitate students' equitable access to the curriculum. **Assignments:** Tech Tool Presentation, Digital Inquiry, Flipped/Blended Lesson, Assistive Technology 3.7 Candidates will model and develop digital literacy by using technology to engage students and support their learning, and promote digital citizenship, including respecting copyright law, understanding fair use guidelines and the use of Creative Commons license, and maintaining Internet security. **Assignments:** Digital Literacy and Citizenship Module 3.8 Candidates will demonstrate knowledge of effective teaching strategies aligned with the internationally recognized educational technology standards. **Assignments:** Tech Tool Presentation
TPE 4: Planning Instruction and Designing Learning Experiences for All Students	4.4 Candidates will plan, design, implement and monitor instruction, making effective use of instructional time to maximize learning opportunities and provide access to the curriculum for all students by removing barriers and providing access through instructional strategies that include: Appropriate use of instructional technology including assistive technology Applying principles of UDL and MTSS **Assignments:** Digital Inquiry, Flipped/Blended Lesson, Assistive Technology 4.8 Candidates will use digital tools and learning technologies across learning environments as appropriate to create new content and provide personalized and integrated technology-rich lessons to engage students in learning, promote digital literacy, and offer students multiple means to demonstrate their learning. **Assignments:** Tech Tool Presentation, Digital Inquiry, Flipped/Blended Lesson

TPE 5: Assessing Student Learning	5.4 Candidates will use technology as appropriate to support assessment administration, conduct data analysis, and communicate learning outcomes to students and families **Assignments:** [Formative Assessment](#)

Course Plan

Class & Date	Topics and Tools	Projects and Homework	TPEs
1 **4/4**	**Digital inquiry, simulations, and hyperdocs** 1) What is digital inquiry? 2) How might it enhance learning? 3) How can digital inquiry increase student engagement? Scvngr, ThingLink, Prezi, Google Docs	Create a digital inquiry or simulation and post it to your website Post website URL on class Padlet	1.4 4.8
2 **4/11**	**Technology for Assessment and Data** 1) What data might we want to collect to help us better look at our students and their learning? 2) How can we use technology to help us collect and manage that data? 3) What digital tools can help with formative assessment? Google Forms, Socrative, Kahoot, Today's Meet, piktochart.com, Infogr.am, Creately, Gliffy, Schoology	Create three different assessments using digital tools Represent assessment data visually using one of the listed apps or another of your choosing Blog: Write about how technology can help you understand what students know and are able to do.	5.4
3 **4/18** **Virtual**	**Digital Literacy and Citizenship** 1) What is digital literacy? 2) How do we promote good digital citizenship with students? 3) How are teens using technology? 4) Privacy and your online reputation Common Sense Media	Blog Post: See prompts on website	3.7
4 **4/25**	**Using Google Classroom with Helen Murdock** 1) How can Google Classroom help teachers plan, assess, and organize? 2) How can Classroom integrate with other tools? [Google Classroom](#)	Set up Google classroom with at least one assignment	4.4 4.8
5	**Current trends in Ed Tech with Cailee**	Add to Resources page	1.4

5/2	**Kilroy (math/sci focus)** 1) What are some current trends in edtech? 21st Century teaching with apps. Pedagogy of edtech and purposeful integration of technology	Blog post	1.5
6 **5/9**	**Virtual Reality for Student Support and Engagement;** **Tech jobs panel with Nitin Anand (Linked In) and James Bruce (Procore)** 1) How can we use virtual and augmented reality to increase student engagement? Aurasma, QR Code Generator, Google cardboard, Vox	Create a lesson that incorporates virtual or augmented reality	4.4 4.8
7 **5/16**	**Current trends in Ed Tech with Amy McMillan (ELA/HSS Focus)** 1) What are some current trends in edtech? Student-centered, mastery learning, student choice, authentic audience, multimedia, student engagement tools, Google maps	Add to Resources page Blog post	1.4 1.5
8 **5/21**	**SBCEO Showcase of Innovative Learning** 1) How are teachers in the district using technology to engage students? 2) How can we use tech tools to develop our growth in the TPEs?	Blog Post Add to Resources page	6.3
9 **5/23**	**Assistive Technology** 1) How can we use technology to support students with special needs? 2) What technology tools can best help students access and engage with content? Google Read, write and speak; Mac voiceover, Zoom - vision challenge. Dictation on Mac, KNFB text to speech, LookTel Money Reader, Various lower tech tools	Blog: Choose one AT resource to investigate more thoroughly. How do you envision this resource being used in your classroom? Identify a specific student need and research how that need might be met through AT	3.6 4.4
10 **5/30** **Virtual**	**Flipped and Blended Learning**	Create a flipped and/or blended lesson for your students to do.	6.3

| | 1) How can we plan for more personalized instruction using technology?
2) Is blended learning the future of teaching?
3) What are the costs and benefits of blended learning?
4) How can "flipped" lessons be used to redesign the learning and teaching experience?
5) What are the goals of a flipped lesson?

EdTed.com, Google Screencast, Explain Everything, Show Me, Educreations | Blog: Write about how your lesson created personalization opportunities for students. | |

Assignments

Tech Tool Presentation (TPEs 1.4, 3.6, 3.8, 4.8)
You will select a technology tool that is helpful to classroom instruction or to your organization as a teacher and present it to the class. During your presentation, you should demonstrate how to use the tool, discuss the pros and cons of the tool, explain where the tool fits on the SAMR model, describe how the tool will support student engagement, and (if appropriate) explain where the tool fits on the DOK. Your presentation should be around 5 minutes, and no more than 10 minutes in length.

Digital Citizenship and Literacy Module (TPE 3.7)
Using the resources on Common Sense Media, you will complete the educator digital citizenship training. As part of the training, you will also evaluate the resources the organization offers for teaching digital literacy and citizenship to students. Finally, you will complete a blog post on digital literacy and citizenship.
> **Blog Post:** In a paragraph form post respond to the following:
> - Write down three facts about teens/tweens and technology, including one from the infographic.
> - Identify one challenge and one opportunity that relates to your students given today's technology landscape.
> - What does digital citizenship mean to you?
> - What are the 4 C's of digital citizenship?
> - Which topics of digital citizenship do your students struggle with?
> - Which are they strong in?
> - How might you engage different stakeholders in digital citizenship?

PLN (TPE 6.3)
After reading information on the importance of Professional/Personal Learning Networks, you will begin curating resources for your own PLN. Using one or more of the tools introduced in the class for PLNs, choose at least 10 accounts to follow that will help you develop as an educator.
> **Blog Post:**
> How can building a PLN help you grow your practice? Choose at least one way that you hope to grow your practice and directly address how your PLN might help you grow in that area. How did you choose how to create your PLN?

Formative Assessment (TPE 5.4)
Using the tools that we discuss during our classes on formative assessment, you will create a formative assessment using one or more of the tools. Your formative assessment should make strong use of the features of the tool, and allow you to collect data on student learning. After you have created your assessment, you will work in groups of 4 to take and evaluate each other's assessments. Once you have solidified your assessment, use your formative assessment tool with your students, collect data on their performance, and post the data on the projects page of your website. You should use one of our data representation tools to represent your data.
>   **Blog Post:**
>   Write about how technology can help you understand what students know and are able to do. What did you discover about your students' learning through using this formative assessment tool?

Digital Inquiry (TPEs 1.4, 3.6, 4.4, 4.8)
Think of a topic that you want students to learn more about and curate resources to help students do this learning. Looking at the examples provided, create a digital inquiry for students to engage in using one of the digital inquiry tools we learned about.
>   **Part 1 - What Makes for a Good Web-Based Inquiry?**
>   1. In a group of 4, check out this webquest on webquests. While you don't need to do the webquest, take some time to browse around the site and get familiar with how to structure a webquest. http://webquest.org/sdsu/webquestwebquest.html
>   2. Go to the Resources page and examine 3-5 webquests in your content area or other content areas
>   3. As you are looking through these websites, add your ideas of what makes for a good web-based inquiry to our back channel discussion on Today's Meet
>
>   **Part 2 - Create a Web-Based Inquiry or Simulation**
>   Using what you now know about web-based inquiry, create a web-based inquiry for students to complete. This should be posted to your website. It should include
>   1. A task for students to do
>   2. Procedures for the task
>   3. Web-based resources for them to use
>   4. Criteria for evaluation
>   5. Roles for students (optional)

Flipped/Blended Lesson (TPEs 1.4, 2.2, 3.6, 4.4, 4.8)
Begin by watching the video on blended learning, introducing you to some apps and tools for blended learning. After you watch the introduction to blended learning and some select apps, create a flipped or blended lesson using one of the tools we explored. Decide which tool is best for the topic of the lesson you are creating. Your lesson must have an interactive component. This means that if you choose an app that does not have an interactive component built in, then you need to also use another tool like Socrative, GoogleForms, PollEverywhere, or another one to create an interactive component.
>   **Blog Post:**
>   Write about how your lesson created personalization opportunities for students.

Assistive Technology (TPEs 1.4, 3.6, 4.4)
You will attend an all-day assistive technology workshop hosted by the county education office. In this workshop, you will learn about various high-tech and low-tech tools that can assist students with varying learning needs. You will also learn about incorporating assistive technology into students' IEPs. After you have explored various assistive technologies, including assistive and augmented communications devices, you will consider how these technologies can address student needs in your classroom through a blog post.

Blog Post:
Choose one AT resource to investigate more thoroughly. How do you envision this resource being used in your classroom? Identify a specific student need and research how that need might be met through AT. Write about how you might address that need through some of the AT tools you discovered.