## Sul Ross State University

# Department of Education Fall 2024 Syllabus

## ED/EDSR 6383 Educational Technology Capstone with Portfolio Development

Instructor: Jennifer Miller, PhD. Associate Professor of Education

Offices:

Alpine Office LFRI Office BAB 102, Alpine

Office Phone: 432-837-8013 Cell Phone: 254.485.0758

Fax: 432-837-8390

Email: jennifer.miller@sulross.edu

**Del Rio Office** 205 Wildcat Dr Del Rio, Texas 78840

Virtual Office Hours via Microsoft TEAMS Tues, 1-6 pm CST, & Thurs. 10-3 pm & by appointment 432-837-8013



This course is reserved for students enrolled in the final semester of the Educational Technology graduate program. Students will utilize an electronic portfolio to present an approved topic of research and/or review of program for peer and faculty committee presentation. Enrollment must be approved by advisor.

**Required Textbook:** No required textbook

**OER Resources** 

## **Marketable Skills:**

The marketable skills focus on the 4C's of 21<sup>st</sup> Century Skills to include the following 21<sup>st</sup> century literacies.

<u>Critical Thinking:</u> Students will analyze data, locate solutions to problems, and communicate solutions using a variety of mediums.



<u>Creativity</u>: Students will leverage innovative approaches to think outside the box during problem solving.

<u>Collaboration</u>: Students will apply collaborative workflows when working with others because it is inherent in the nature of how work is accomplished in our civic and workforce lives.

<u>Communication:</u> Students will leverage digital technologies to express thoughts clearly, crisply articulate opinions, communicate coherent instructions, motivate others through powerful speech, visual literacy and academic writing.

#### Citation

National Education Association. (2012). Preparing 21st century students for a global society: An educator's guide to "the four Cs." Washington, DC. Retrieved

from http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf

## **Program Goals:**

- 1. Design authentic, learner-driven activities and environments that recognize and accommodate learner variability and accessibility. Students will be able to identify common barriers and issues surrounding improper implementation of technological tools in the educational setting, workplace, and/or professional environments.
- 2. Effectively model the International Society of Technology Education standards and good digital citizenship to inspire learners to use and integrate technology to create equitable and ongoing access to high-quality learning in an educational setting.
- 3. Plan, provide and evaluate the impact of professional learning for professionals and leaders to use technology to advance teaching and learning in an educational setting. Students will use the use both qualitative and quantitative data to inform their own instruction and professional learning.
- 4. Understand and apply learning theoretical frameworks and instructional methods to instructional design to facilitate engagement, systemic development, and authentic learning experiences.

## This class will address the following Student Learning Outcomes (SLOs):

This course is designed as an introduction to the field of instructional design and technology.

By the end of the course, students will be able to:

- 1. Examine and reflect on areas of interest within the scope of educational technology practice for the capstone experience and case study project.
- 2. Complete a research certification training.
- 3. Design, research, analyze, and communicate outcomes of an action research-based case study to address a specific need within educational instructional technology.
- 4. Evaluate and select online resources and learning artifacts to communicate professional leadership growth over the course of the EIT program through the development and publishing of an electronic portfolio.

The ISTE Standards are a framework for innovation in education. These standards help educators and education leaders worldwide prepare learners to thrive in work and life. (www.iste.org/standards)

## **ISTE Standards for Coaches**

1. Change Agent: 1a, 1b, 1c, 1d, 1e

- 2. Connected Learner: 2a, 2b, 2c
- 3. Collaborator: 3a, 3b, 3c, 3d
- 4. Learning Designer: 4a, 4b, 4c, 4d
- 5. Professional Learning Facilitator: 5a, 5b, 5c
- 6. Data-Driven Decision Maker: 6a, 6b, 6c,
- 7. Digital Citizen Advocate: 7a, 7b, 7c, 7d

## **ISTE Standards for Educators**

- 1. Learner: 1a, 1b, 1c
- 2. Leader: 2a, 2b, 2c
- 3. Citizen: 3a, 3b, 3c, 3d
- 4. Collaborator: 4a, 4b, 4c, 4d
- 5. Designer: 5a, 5b, 5c
- 6. Facilitator: 6C, 6D
- 7. Analyst: 7A, 7B

## **ISTE Standards for Educational Leaders**

- 1. Equity and Citizenship Advocate: 1a, 1b, 1d
- 2. Visionary Planner: 2e
- 3. Empowering Leader: 3a, 3b, 3c
- 4. Systems Designer:
- 5. Connected Learner: 5a, 5b, 5c, 5d

## **Requirements:**

## **Assignments Descriptions and Point Value**

Expectations are communicated within assignment rubrics for each of the following assignments in blackboard and are subject to change.

- Introduction Activity (25 Points)
- IRB Training (50 Points)
- Literature Review (25 Points)
- Capstone Proposal (100 Points) The capstone proposal is a formal research proposal that includes submission of the following elements: literature review, research question, and methodology approach. Candidates may select to incorporate elements from ED 6376 to assist with the design of the capstone proposal.
- Capstone Design: (100 Points) IRB training and IRB design of the capstone proposal.
- Capstone DATA Analysis- (50 Points) RAW data and analysis of findings.
- **Electronic Portfolio:** (100 Points)- The E-Portfolio created and shared to show growth over the course of the EIT program, includes link to Introduction, 8 Capstone Artifacts, multimedia products, link to professional blog, vita, and summary of goals. **Breakdown of Portfolio is below.** 
  - o Bio and Vita (25 Points)
  - o Final Electronic Portfolio (75)
- Capstone Implementation- (50 Points) Progress report, maximum of 2 pages, of

the research implementation. Progress of the project.

- 5 Discussion Board Assignments (20 Points Each/100 Points Total): Discussion boards require the following.
  - Initial Response 10 Points: At least 400 word response that is well supported in literature and/or examples/resources following APA guidelines.
  - Peer Review 5 Points: At least 1 peer thoughtful peer review consisting of 250 words or more that asks higher order questions, promotes deep reflection, shares resources or additional best practices, following APA guidelines.
  - o **Response to Peer Review 5 Points:** Provide 1, 200-word response to peer review posted to build upon knowledge.
- 4 Journal Assignments (25 Points Each/100 Total Points): Self-reflection of progress of capstone key assignments and readings. Each journal should encompass at least 300 words and share knowledge and understanding, shifts in thinking or inquiry, and share connections to real-world applications.
- Final Case Study Report (100 Points) and Presentation (100 Points) Final capstone case study report and 15 minute presentation of the overview and EIT Reflection Letter (100 Points): Reflection of the EIT program experience.

## **Grading Scale:**

A: 900-1000 B: 800-899 C: 700-799 D: 600-699 F: Below 600

## All assignments are due on the scheduled date. Late assignments will not be accepted!

Modules	Assignments	Due
		Dates
Module 1: Preparing for Capstone Proposal	<ul> <li>Introduction Activity</li> <li>Review of IRB Process and Training</li> <li>Updated Literature Review</li> <li>Capstone Proposal</li> <li>Journal #1</li> </ul>	Sept. 3
Module 2: Creating Capstone Research Design	<ul> <li>Discussion #1: Capstone Project Design Sharing and Peer Review</li> <li>Meeting with Dr. Miller to review IRB</li> <li>Final Capstone Design (submitted to IRB board)</li> </ul>	Sept 16
Module 3 ePortfolio Development	<ul> <li>Review of ePortfolio Tools and Defense Requirements</li> <li>Journal #2</li> <li>Bio and Vita Assignment</li> <li>Discussion #2: ePortfolio and Peer Review</li> <li>Submit Final ePortrfolio</li> </ul>	Oct. 7

	Schedule Defense	
Module 4 Capstone Implementation	<ul> <li>Discussion #3: Implementation Barriers Discussion and Peer Review</li> <li>Implementation Progress Report</li> </ul>	Oct. 28
Module 5: Capstone Analysis	<ul> <li>Capstone Data Analysis Report</li> <li>Journal 3</li> <li>Discussion #4: Case Study Data Discussion and Peer Review</li> </ul>	Nov 22
Module 6: Final Case Study	<ul> <li>Final Case Study Report</li> <li>Case Study Presentation Video</li> <li>Journal 4</li> </ul>	Dec 2
Module 7: Evaluation, Reflection, and Revision	<ul> <li>Case Study Self Evaluation</li> <li>Discussion #5: Case Study Video and Peer Review</li> <li>EIT Reflection Letter</li> </ul>	Dec 10

#### **ADA Statement**

SRSU Accessibility Services. Sul Ross State University (SRSU) is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director at 432-837-8203 or email <a href="mailto:mschwartze@sulross.edu">mschwartze@sulross.edu</a> or contact Alejandra Valdez, at 830-758-5006 or email <a href="mailto:alejandra.valdez@sulross.edu">alejandra.valdez@sulross.edu</a>. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is <a href="mailto:P.O.Box C122">P.O.Box C122</a>, Sul Ross State University, Alpine. Texas, 79832.

## **SRSU Distance Education Statement**

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires a secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

## Libraries

The Bryan Wildenthal Memorial Library and Archives of the Big Bend in Alpine offer FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, <a href="mailto:library.sulross.edu/">library.sulross.edu/</a>. Off-campus access requires logging in with

your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (<a href="mailto:srsulibrary@sulross.edu">srsulibrary@sulross.edu</a>), or by phone (432-837-8123).

No matter where you are based, public libraries and many academic and special libraries welcome the general public into their spaces for study. SRSU TexShare Cardholders can access additional services and resources at various libraries across Texas. Learn more about the TexShare program by visiting <a href="mailto:library.sulross.edu/find-and-borrow/texshare/">library.sulross.edu/find-and-borrow/texshare/</a> or ask a librarian by emailing srsulibrary@sulross.edu.

Mike Fernandez, SRSU Librarian, is based in Eagle Pass (Building D-129) to offer specialized library services to students, faculty, and staff. Utilize free services such as InterLibrary Loan (ILL), ScanIt, and Direct Mail to get materials delivered to you at home or via email.

## **Academic Integrity**

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. Students should also avoid using open AI sources *unless permission is expressly given* for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

## **Classroom Climate of Respect**

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still, we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

## **Supportive Statement**

I aim to create a learning environment for my students that supports various perspectives and experiences. I understand that the recent pandemic, economic disparity, and health concerns, or even unexpected life events may impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create a supportive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.

#### Note on GenAI Use in This Class:

Unless otherwise noted during class activities, you may only use ChatGPT, Perplexity or any other GenAI technologies to *aid* or *nuance* your thinking, communication, and learning; but not to *replace* or *subvert* it. See the table below for some examples of allowable and non-allowable uses of GenAI technologies in this class (NOTE: This is not an exhaustive list of examples).

Example of an Allowable Use	Why is this Allowed?	Things to Keep in Mind

Prompting GenAI technologies to generate ideas for a class project.	This might enhance your creative thinking by exposing you to different ideas compared to what you might come up with on your own (GenAI technologies, like ChatGPT, draw from a massive dataset of billions of parameters, which means these tools can introduce you to ideas and concepts from various fields that you might not be familiar with).  GenAI writing technologies are also helpful for idea iteration – you can prompt these technologies to give you 50 different iterations of the same idea in less than a few seconds.	It is important to start with brainstorming your own ideas first (to aid your creative thinking), rather than letting GenAI do that initial work for you. Also, beware that GenAI might introduce biases into the topic when prompted to generate ideas.
Using GenAI technologies for writing support (e.g., to improve writing quality, clarity, and expression).	GenAI writing technologies, like ChatGPT, can provide ideas for how to revise a sentence or word, suggest ways to begin a paragraph, offer feedback on how to express your thinking more clearly in writing, review your writing for grammar and spelling errors, and help you match your writing style to a specific tone or audience. Used in this way, GenAI technologies might support the development of your communication skills.	Make sure to <b>get your</b> thoughts written down first rather than asking GenAI technologies to write the first draft. Writing and thinking are interconnected processes, if you prompt GenAI technologies to write the first draft for you, you are not actively engaging in thinking about the material.  NOTE: We also have a wonderful Writing Center on campus! Use it!
Using GenAI technologies as a study or assignment aid.	GenAI technologies can offer study tips, provide example text/quiz practice questions, design a personalized study guide, design flashcards, give directions for how to complete an assignment, create learning simulations	GenAI tools are known for making up information and presenting biased output.  Make sure to double-check the accuracy, credibility, and reliability of any AI-generated information that you use to support your

	and interactive scenarios to help you think more deeply about the class content, and provide a rubric so you can self-assess your own work.	studying or assignment completion.
Prompting GenAI technologies to help make information easier to understand (e.g., explaining technical or academic jargon, providing concrete examples of an abstract idea).	GenAI technologies could potentially be used in ways that reduce cognitive load (see Cognitive Load Theory), such as breaking material into smaller chunks, summarizing and simplifying material, providing an outline of an article to support prereading, translating text into your native language, making content more accessible, scaffolding learning, and providing concrete examples.	If GenAI technologies are used in ways that reduce germane load (the cognitive effort required to build mental schema) it can negatively impact learning. For example, asking ChatGPT to summarize an article for you instead of reading the article reduces your germane load as well as your ability to learn from the reading.
Using AI and GenAI technologies recommended due to disability.	GenAI technologies can be used to make learning more accessible, and digitally accessible, for disabled individuals (e.g., transcripts of recorded audio, closed captions for videos, alt text to describe images for blind/visually impaired individuals, interpretations of complex visual data).	If you have a self-identified or registered disability, consider how GenAI tools might aid your thinking, communication, and learning. You might consider discussing ways to use AI to aid your learning with Disability Services staff on campus.

Example of a Non-Allowable Use	Why is this NOT Allowed?
Prompting a GenAI technology to respond to a discussion forum prompt for you.	Discussion prompts are meant to incorporate your voice and your thoughts. Participating in discussions is about building community and relationships as well as actively engaging in your own thinking and learning to communicate with

	others. Using GenAI technologies for this activity subverts both the social and learning goals of the activity.
Using a GenAI technology (e.g., Slidesgo) to <b>design a class presentation</b> for you.	Designing a presentation requires you to actively engage in thinking and learning about the material and consider how best to communicate that information to an audience. Prompting GenAI technologies to do this work for you subverts your learning and the opportunity to develop your creative communication skills.
Modifying AI-generated work slightly to <b>make it appear as if</b> you created it.	Making minor adjustments to AI-generated work only supports surface-level learning, rather than deep learning ( <a href="learn more">learn more</a> ), because the focus is on minor adjustments rather than truly understanding the material.
Prompting a GenAI technology to automatically summarize a complex academic article instead of reading and summarizing it yourself.	Used in this way, you are basically asking a GenAI technology to "read for you." This offloads your thinking, learning, and the productive struggle of understanding and critically examining the author's ideas (read: No One is Talking About AI's Impact on Reading).
	You are also relying on the GenAI technology to do the work of analyzing and making sense of a text; even though these tools are predictability machines that do not have any real understanding of the text (read "The Fundamental Limitations of LLMs").
	Also, consider that uploading a copyrighted academic article to a GenAI technology might be considered copyright infringement since you are giving away copyrighted data to a GenAI technology without permission from the author.
Prompting GenAI technologies to analyze data for you and submitting the data analysis as your own.	Research has shown that using GenAI technologies to provide solutions for you (or in this case, provide data analysis output for you) prevents you from actively engaging with, and learning, the material (read: Generative AI Can Harm Learning). Using GenAI technologies in this way subverts your learning.
	Additionally, GenAI tools are not calculators or math machines, they are <u>predictability machines</u>

	(they guess which words go together to make the most plausible human-sounding response).
Copying AI-generated text word for word into your written work, but citing it as written by AI.	Please read "The Case For Not Citing Chatbots As Information Sources" and "Generative AI Has an Intellectual Property Problem" and, instead, find an original source to cite. When you put in the effort to find an original source to cite, you are deepening your thinking and learning about that topic and you are giving credit to human authors/artists.  However, if you prompt a GenAI technology to create an original source of text or media – something that cannot be traced back to an original source (e.g., a Taylor Swift rendition of the Declaration of Independence) – you can write "This text was generated by ChatGPT [or insert another GenAI technology] in a footnote."
Using a <b>GenAI technology to create media</b> (e.g., images, audio, video) for a class project if a similar media exists already (e.g., Creative Commons images, Public Domain audio).	Considering that GenAI technologies that produce images, audio, video, and other forms of media are built on media stolen from artists without their permission AND that generating media with AI is an energy intensive process, which negatively impacts the environment, you are strongly encouraged to look for media that already exists (e.g., Pixabay images/video; YouTube audio library songs and sound effects; OpenVerse for a variety of media) as Creative Commons or in the Public Domain to include in your class projects.

If you find yourself turning to GenAI technologies to do your work for you, consider setting up a meeting with Dr. Miller to discuss how class activities and assignments can be adapted to support your learning (e.g., if you do not have enough time to complete the class activities and are turning to AI to do the work for you, you could meet with Dr. Miller to discuss flexible deadlines or alternative activities). Additionally, when using ChatGPT and other AI writing technologies, which are notorious for producing misinformation and fabricating information, it is your responsibility to verify the credibility, accuracy, and trustworthiness of any information you use from these technologies.

This course syllabus is intended to be a guide and may be amended at any time.