## Sul Ross State University

Department of Education Summer 1 2024 Syllabus EDUA/EDSR 6378 Integration of Technology into the Curriculum

Instructor: Jennifer Miller, PhD. Associate Professor of Education Offices:



**Rio Grande College Campus** 205 Wildcat Dr Del Rio, Texas 78840

#### 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

Summer Virtual Office Hours via Microsoft TEAMS by appointment 432-837-8013

## **Course Description:**

(3-0) This course examines the advantages and challenges of effectively integrating technology into the curriculum in an effort to promote student motivation, engagement, and learning. Technologies assisting school personnel in assessment, evaluation, record- keeping, and data collection will be examined as well.

\*Recommended to be taken before ED 6379 Implementation of Ed Tech Program in the educational setting.

## Marketable Skills:

The marketable skills focus on the 4C's of 21- Century Skills to include the following 21st 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 <a href="http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf">http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf</a>

### **Program Goals:**

- 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:

- Identify applications and issues associated with the effective implementation and support of technology-rich learning environments.
- Acquire knowledge of the most current technological tools that assist in instructional design and learning
- Understand common drawbacks and pitfalls of improper implementation of technological tools in the educational setting, workplace, and/or professional environments.
- Apply technology resources and tools appropriately when implementing administrative practices, instruction and evaluation.
- Create a professional development plan for technology integration.
- Create a portfolio of learning tools for administrators and teachers.

# 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 Administrators**

- 1. Visionary Leadership: 1a, 1b
- 2. Digital Age Learning Culture: 2d,

- 3. Excellence in Professional Practice: 3a, 3b, 3c, 3d
- 4. Systemic Improvement: 4a, 4b, 4e
- 5. Digital Citizenship: 5a, 5b, 5c

#### **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

#### **ISTE Standards for Coaches**

- 1. Change Agent: 1a, 1b, 1d
- 2. Connected Learner: 2a, 2b, 2c
- 3. Collaborator: 3a, 3b, 3c, 3d
- 4. Learning Designer: 4a, 4b, 4c, 4d
- 5. Professional Learning Facilitator: 5a, 5c
- 6. Data-Driven Decision-Maker: 6c
- 7. Digital Citizen Advocate: 7a, 7b, 7c, 7d

Required Textbook: No required textbook (See Course Readings)

#### **Requirements:**

#### **Course Requirements:**

- Attendance
  - Students should refer to the *Online Absence Policy* posted in Blackboard under the tab Course Information regarding participation in an online course.
- Daily Readings
  - We will be covering a good amount of information in a very short amount of time. A large part of the graduate student responsibility in this course will be to devote time to the required readings and assignments. Please stay prepared to keep up with the rigorous pace of the course.

Weekly Discussion Board	5 @ 20 points
• 4 Review Quizzes	2 @ 20 points
• Blog	3 @ 20 points
• Twitter Chat Question Planning	20 Points
Twitter Chat Google Slide Resource Creation	50 Points
Twitter Chat Participation	50 Points

Professional Development Plan/Presentation (Capstone Artifact)
Training Module (Capstone Artifact)

100 points 100 points

TOTAL 600 points

540 - 600 points = A grade 480 - 539 points = B grade 420 - 479 points = C grade 360 - 419 points = D grade Less than 360 points = F grade

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

Modules	Assignments: (Subject to Change)	Due Dates (Subject to Change)
Module 1: The Future Ready Learner	Participate in Welcome ModuleParticipate Social 30 second elevator Pitch Introduction DiscussionView A Vision of Students TodayReview https://tech.ed.gov/futureready/Read LiteratureExplore: TEA Standards for Digital LearningWhat does it mean to be Future Ready? Discussion	June 3
Module 2: The Future Ready Teacher Post-COVID with AI	<ul> <li>and Peer Review</li> <li>View Future Ready: Growing Teachers as Leaders</li> <li>View We Must Take a Strategic Approach to Technology Integration</li> <li>Explore ISTE Standards for Students, Teachers, Digital Coaches, Leaders</li> <li>Read: <ul> <li>Post Covid Teaching and Learning Resources</li> </ul> </li> <li>View EdTech in a PostCovid World</li> <li>View COVID and Education: Challenges, Opportunities, and Future of Learning</li> <li>Explore Teaching with AI, participate in prompt discussion.</li> </ul> <li>Future Ready Quiz 1</li>	June 9
Module 3: What is	View An Introduction to Technology Integration View Integrating Technology Into Teaching and Learning	June 16

Technology Integration?	View TPACK Model for Technology Integration in 2 Minutes Review SAMR Model Resources Explore TPACK Resources View TPACK vs SAMR: Key Differences Between 2 Tech Frameworks Review Technology Integration Matrix and Introduction to the Technology Integration Matrix by Dr. James Welsh <b>Blog Post Reflection/Peer Review 1: Using a Framework to Integrate Technology</b> <b>Quiz 2: Technology Integration</b> Introduction to Improving Learning Engagement Twitter Chat Professional Learning Group Activity	
Module 4: Universal Design for Learning	<ul> <li>View: Leveraging technology to increase classroom engagement</li> <li>View: UDL at a Glance</li> <li>Read: <ul> <li>Gronseth, S. L., &amp; Hutchins, H. M. (2020).</li> <li>Flexibility in Formal Workplace Learning: Technology Applications for Engagement through the Lens of Universal Design for Learning. TechTrends: Linking Research &amp; Practice to Improve Learning, 64(2), 211–218.</li> <li>Morra, T., &amp; Reynolds, J. (2010). Universal design for learning: Application for technology-enhanced learning. Inquiry: The Journal of the Virginia Community Colleges, 15(1), 5.</li> <li>https://udlguidelines.cast.org/</li> <li>Review Key Questions to Consider UDL</li> </ul> </li> <li>Participate in Improved UDL to Improve Learning Engagement Discussion and Peer Review</li> <li>Blog Post:/Peer Review 2 Learning Apps and Strategies to Improve Student Motivation and Engagement Continue Planning for Learning Engagement Professional Learning (Plan Due) Start Designing Learning Resource in Google Slides</li> </ul>	June 23
Module 5: Learning Technology for	<ul> <li>Read:</li> <li>Shepherd, A. C., &amp; Taylor, R. T. (2019). An Analysis of Factors Which Influence High School Administrators' Readiness and Confidence to</li> </ul>	June 27

Administrato rs	Provide Digital Instructional Leadership. International Journal of Educational Leadership Preparation, 14(1), 52-76. Explore Podcast: What is new in Digital Leadership? <u>https://www.coolcatteacher.com/whats-new-in-digital- leadership-version-2-with-eric-sheninger/</u> <b>Participate in Digital Leadership and Integration of Technology Discussion and Peer Review</b> Complete Professional Learning Resource Submit PD Plan/Outline	
Module 6: Andragogy Approaches for Educational Technology Learning for Adult Learning	<ul> <li>Participate in Discussion and Peer Review: Describe experiences in technology integration professional development. Was it presented with curriculum or as a separate training through only the technology department? Was there an evaluation component? Were learning objectives included and shared? Read: <ul> <li>Bliss, A. C. (2019). Adult Science-Based Learning: The Intersection of Digital, Science, and Information Literacies. Adult Learning, 30(3), 128–137.</li> <li>Miller, J., Christensen, R., &amp; Knezek, G. (2017, March). Effect of a makerspace training series on elementary and middle school educator confidence levels toward integrating technology. In Society for Information Technology &amp; Teacher Education International Conference (pp. 1015-1020). Association for the Advancement of Computing in Education (AACE)</li> </ul> </li> <li>View: <ul> <li>Adult Learning Theory   Knowles' 6 Assumptions of Adult Learners</li> </ul> </li> <li>Blog Post/Peer Review 3: Improving Andragogy of Educational Technology Training for Adult Learning Portfolio of Learning Tool Capstone Artifact : Professional Learning Plan (2-4 Page paper)</li> </ul>	June 30

Module 7: Learning Resources	View: How to Find and Evaluate OER Read: <u>https://er.educause.edu/articles/2018/9/a-rubric-for-evaluating- e-learning-tools-in-higher-education</u> <u>https://researchguides.austincc.edu/oer/criteria</u> <u>https://www.achieve.org/files/AchieveOERRubrics.pdf</u> Synchronous Twitter Chat: Learning Resource Chat at 8 pm CST on.	July 2
Module 8: Assessment of Learning Resources and Professional Development	Professional Development Plan for Leaders and Teachers Capstone Project	July 6

#### COPYRIGHT NOTICE:

My lectures and course materials, including PowerPoint presentations, tests, outlines, and similar materials, are protected by copyright. I am the exclusive owner of copyright in those materials I create. You may take notes and make copies of course materials for your own use. You may not and may not allow others to reproduce or distribute lecture notes and course materials publicly whether or not a fee is charged without my express written consent. Similarly, you own copyright in your original papers and exam essays. If I am interested in posting your answers or papers on the course website, I will ask for your written permission. ©2020

#### **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 or Ronnie Harris, LPC, Counselor, at 432-837-8203 or email mschwartze@sulross.edu or ronnie.harris@sulross.edu. RGC students can also contact Alejandra Valdez, at 830-758-5006 or email alejandra.valdez@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, 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 in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu/. 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 (srsulibrary@sulross.edu), 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 library.sulross.edu/find-and-borrow/texshare/ or ask a librarian by emailing srsulibrary@sulross.edu.

New for Fall 2023: 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) and ScanIt 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.

#### **Course Readings**

- Al-Bataineh, A., Anderson, S., Toledo, C., & Wellinski, S. (2008). A study of technology integration in the classroom. International Journal of Instructional Media, 35(4), 381.
- Bakia, M. (2014). Future Ready Schools: Building Technology Infrastructure for Learning. Office of Educational Technology, US Department of Education.
- Bliss, A. C. (2019). Adult Science-Based Learning: The Intersection of Digital, Science, and Information Literacies. Adult Learning, 30(3), 128–137.
- Thomas, S. (2016). Future Ready Learning: Reimagining the Role of Technology in Education. 2016 National Education Technology Plan. Office of Educational Technology, US Department of Education.
- Barron, A. E., Kemker, K., Harmes, C., & Kalaydjian, K. (2003). Large-scale research study on technology in K-12 schools: Technology integration as it relates to the national technology standards. Journal of Research on Technology in Education, 35(4), 489-507. doi:10.1080/15391523.2003.10782398.
- Borthwick, A. & Pierson, M. (2018). Transforming classroom practice: Professional development strategies in educational technology.
- Dinevski, D., & Radovan, M. (2013). Adult Learning and the Promise of New Technologies. New Directions for Adult & Continuing Education, 2013(138), 61– 69.
- Educator's Guide to Creating Connections, <u>https://studysites.corwin.com/connectededucators/theeducatorsguide</u> <u>creatingconnections-book.htm</u>.
- Ervin, L. (2014). Assessing student learning with technology: A descriptive study of technology-using teacher practice and technological pedagogical content knowledge (TPACK)
- Foley, G. (2004). Dimensions of Adult Learning : Adult Education and Training in a Global Era. Allen & Unwin.
- Gronseth, S. L., & Hutchins, H. M. (2020). Flexibility in Formal Workplace Learning: Technology Applications for Engagement through the Lens of Universal Design

for Learning. TechTrends: Linking Research & Practice to Improve Learning, 64(2), 211–218.

- Gu, X., Zhu, Y., & Guo, X. (2013). Meeting the "digital natives": Understanding the acceptance of technology in classrooms. Educational Technology & Society, 16(1), 392.
- Inan, F. A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. Educational Technology Research and Development, 58(2), 137-154. doi:10.1007/s11423-009-9132-y
- ISTE Standards for Administrators: <u>www.iste.org</u>.
- ISTE Standards for Coaches: <u>www.iste.org</u>.
- ISTE Standards for Computer Science Educators: www.iste.org.
- ISTE Standards for Educators: <u>www.iste.org</u>.
- ISTE Standards for Students: <u>www.iste.org</u>.
- Kalota, F., & Hung, W. (2013). Instructional effects of a performance support system designed to guide preservice teachers in developing technology integration strategies: Instructional effects of a performance support system. British Journal of Educational Technology, 44(3), 442-452. doi:10.1111/j.1467-8535.2012.01318.x
- Longman, S. M. D. (2013). A comparison of the perceptions of technostress experienced by teachers versus technology used by teachers in elementary education in a southeastern school district
- Md. Khambari, M. N. (2014). The impact of interactive whiteboards on teaching and classroom dynamics
- Maloy, R. W., Verock-O'Loughlin, R.-E., Edwards, S. A., & Woolf, B. P. (2017). Transforming learning with new technologies.
- Martin, W., Strother, S., Beglau, M., Bates, L., Reitzes, T., and McMillan Culp,
  K. (2010) Connecting instructional technology professional development to
  teacher and student outcomes. *Journal of Research on Technology in Education*, 43, (1), 55-76.
- Mller, B. & Reitzes, T. (2011). Integrating technology with student-centered learning: A report to the Nellie Mae Education Foundation.
- Niederhauser, D. S., Lindstrom, D. L., & Strobel, J. (2007). Evidence of the NETSS in K-12 classrooms: Implications for teacher education. Journal of Technology and Teacher Education, 15(4), 483.
- Prensky, M. (2012) Teaching the right stuff: Not yesterday's stuff or today's --- but tomorrow's! *Educational Technology*.
- Rios, R. & Guhlin, M. (2013) Models of Technology Integration, <u>https://sites.google.com/site/learningwithmiguel/workshops/models-of-technology-integration</u>
- Ruggiero, D., & J. Mong, C. (2015). The teacher technology integration experience: Practice and reflection in the classroom. Journal of Information Technology Education: Research, 14, 161-178. doi:10.28945/2227
- Schrock, K. (N.D.). Kathy Schrock's Guide to Everything: SAMR and Bloom's, <u>https://www.schrockguide.net/samr.html</u>
- Steinweg, S. B., Williams, S. C., Stapleton, J. N., Sarah Carver Williams, Sue Byrd Steinweg, & Joy Neal Stapleton. (2010). Faculty use of tablet PCs in teacher education and K-12 settings. Techtrends, 54(3), 54-61. doi:10.1007/s11528-010-0404-5

TPACK, <u>www.tpack.org</u>

Texas Education Agency: Technology Application TEKS.

- Thompson, D. J. (2015). Elementary school teachers' perceptions of the process of integrating technology
- Vannatta, R. A., & Nancy, F. (2004). Teacher dispositions as predictors of classroom technology use. Journal of Research on Technology in Education, 36(3), 253-271. doi:10.1080/15391523.2004.10782415
- Leveraging technology to increase classroom engagement (2019), Elusion, https://www.youtube.com/watch?v=1JtiUb8rlBg.
- Francis, J. (2017). The effects of technology on student motivation and engagement in classroom-based learning.
- Shepherd, A. C., & Taylor, R. T. (2019). An Analysis of Factors Which Influence High School Administrators' Readiness and Confidence to Provide Digital Instructional Leadership. International Journal of Educational Leadership Preparation, 14(1), 52-76.
- Ribble, M., & Miller, T. N. (2013). Educational leadership in an online world: Connecting students to technology responsibly, safely, and ethically. Journal of asynchronous learning networks, 17(1), 137-145.