

Applying Assistive & Instructional Technology Section 81

EDSE 241

Fall 2024 3 Unit(s) 08/21/2024 to 12/09/2024 Modified 08/18/2024

Effective use of the computer to meet exceptional learning needs, including special education software evaluation, word processing for written language development, logo, individualized lessons with graphics and speech and database management for cognitive and language development.

Contact Information

Instructor	Tami Turner, PhD
Office Location	Virtual
Email	tami.turner@sjsu.edu
Office Hours	By appointment
Class Days/Times	Asynchronous

Course Information

Course Description and Requisites

Examination and application of evidence-based applications of AT/IT for students with disabilities. This includes the consideration of AT, including AAC, and evaluation for technology to be included in the IEP.

Prerequisite(s): Department consent.

Letter Graded

Classroom Protocols

This course is technology intensive and run online only. Participants must have access to the internet, have mastered the use of CANVAS, and commit to using and checking their SJSU email regularly for updates. Participants who are unfamiliar with CANVAS and or unable to access their SJSU email are STRONGLY ENCOURAGED to seek assistance from tech support in Clark Hall ASAP.

Program Information

LCOE Department of Special Education Mission

We prepare candidates to be transformative leaders in the field, and lifelong learners who respond to racism, ableism, bigotry, and prejudice in their schools and communities. To this end, we center anti-racist and anti-ableist policies and practices in our teaching, research, and service to disrupt systemic racism that has historically prevented full inclusion and equity for students with disabilities including our BIPOC (Black, Indigenous, People of Color) students, staff, and faculty. We engage culturally sustaining pedagogies and the principles of UDL in our coursework and fieldwork, partnering with our local districts to push for the success of students with disabilities in inclusive settings.

LCOE Department of Special Education Program Learning Outcomes

- **PLO 1** Assess and identify the educational needs and strengths of students with disabilities from diverse socioeconomic, cultural and linguistic backgrounds.
- **PLO 2** Critically evaluate pedagogy, curricula and instructional materials grounded in quality indicators of evidence-based practices for students with disabilities.
- **PLO 3** Plan, design, implement, and monitor linguistically and culturally appropriate instruction that meets the unique needs of students with disabilities.
- **PLO 4** Apply knowledge of the purpose, characteristics, and appropriate use of different types of assessments used for special education eligibility, placement, and service selection.
- **PLO 5** Utilize research-based knowledge and theoretical, conceptual and evidence-based practices related to individuals with disabilities to improve services and instruction in the field.

[Link to Education Specialist TPEs \(pps 13 – 42\). \(https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/education-specialist-standards-pdf.pdf?sfvrsn=729750b1_45\)](https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/education-specialist-standards-pdf.pdf?sfvrsn=729750b1_45)

Course Goals

This course is intended to assist students to meet the competencies specified in the Mild/Moderate Standards and Extensive Support Needs (ESN) Specialty Teaching Performance Expectations (TPE) related to assistive and instructional technology, alternative augmentative communication systems, and universal design for learning.

CTC Teacher Performance Expectations

Universal	M/M	ESN	ECSE
1.4, 3.6, 3.7, 3.8, 4.8	1.2, 4.1,	1.2, 2.5, 4.3	1.1, 2.3, 2.6

Course Learning Outcomes (CLOs)

1. Upon successful completion of this course, students will be able to:
2. Develop a protocol for teachers to implement an evidenced based technology intervention.
3. Synthesize evidenced based practices in assistive/instructional technology (AT/IT) and multimedia learning.
4. Analyze research and policy related to the use of AT/IT with students with disabilities.
5. Review current web-based applications and interventions to support special education learners.
6. Create a technology-based intervention that supports an academic, behavioral, or social outcomes for students with disabilities.
7. Conduct an assessment that identifies students AT and AAC needs.
8. Work as a member of a multidisciplinary team to develop systems that incorporate augmentative communication systems and assistive technology in the classroom.
9. Implement strategies, techniques, and technology to enhance effective communication in a variety of educational environments.
10. Evaluate existing technology tools and determine if they are suitable for classroom use.

Course Materials

CANVAS Learning Management System

Course materials such as the syllabus, handouts, notes, assignment instructions, and readings can be found on the Canvas learning management system course page for this course. The Canvas Learning Management System course login website at <http://sjsu.instructure.com>. You are responsible for regularly checking with the messaging system through Canvas. Additionally, be aware that all communications for this course should take place on either Canvas or through your university provided email (sjsu.edu).

Required Texts/Readings

Textbook

No textbook required for this course.

Other Readings

Crompton, H. (2018). Education reimaged: Leading systemwide change with the ISTE standards. *International Society for Technology in Education*.

Dabbagh, N., Bass, R., Bishop, M., Costelloe, S., Cummings, K., Freeman, B., Frye, M., Picciano, A. G., Porowski, A., Sparrow, J., & Wilson, S. J. (2019). Using technology to support postsecondary student learning: A practice guide for college and university administrators, advisors, and faculty. Institute of

Education Sciences, What Works Clearinghouse (WWC 20090001), and National Center for Education Evaluation and Regional Assistance (NCEE), *Institute of Education Sciences, U.S. Department of Education*. <https://whatworks.ed.gov>.

Dexter, S., & Richardson, J. W. (2020). What does technology integration research tell us about the leadership of technology? *Journal of Research on Technology in Education*, *52*(1), 17–36.

Gonzales, M. M. (2020). School technology leadership vision and challenges: Perspectives from American school administrators. *International Journal of Educational Management*, *34*(4), 697–708.

König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, *43*(4), 608–622.

OECD. (2020). PISA 2021 ICT Framework. <https://www.oecd.org/pisa/sitedocument/PISA-2021-ICT-framework.pdf>

Reich, J. (2020). Failure to disrupt: Why technology alone can't transform education. *Harvard University Press*.

Sailer, M., Murböck, J., & Fischer, F. (2021). Digital learning in schools: What does it take beyond digital technology? *Teaching and Teacher Education*, *103*, Article 103346.

Tate, T., & Warschauer, M. (2022). Equity in online learning. *Educational Psychologist*, *57*(3), 192–206.

Library Liaison

The Special Education Library Liaison is:

Mantra Roy

mantra.roy@sjsu.edu

Other Technology Requirements / Equipment / Material

Students will need access to Microsoft or Google Application Suites that include word processing, Presentation Software, and Spreadsheets.

Course Requirements and Assignments

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Assignments

1. Weekly Canvas Materials (10-20 Points weekly): For each topic presented in the course, students will be tasked with discussing in small or large online groups their interpretations of the readings, media, and other information provided on the topic, and completing weekly assignments/quizzes based on information from the weekly modules.
2. Technology Intervention (40 Points): Students will reflect on what defines the role of technology in the classroom based on the guidance and mandates provided by legislation, technology standards, and national plans related to technology use in the classroom. Then design an intervention plan using technology to support student learning with elements of UDL. (TPE U3.7) **Due 11/10/24**
3. Assistive Technology Presentation (50 Points): Students will review available instructional technology platforms or educational applications and demonstrate their accessibility for students with various disabilities, their alignment to principles of UDL, and how the tool addresses specific learning needs of students with various disabilities. Various due dates-sign up in Module 1
4. Technology Resource Collaboration (50 Points): Students will work collaboratively in small groups to create a resource highlighting technology resources and levels of support in an assigned area that aligns to TPE standards including the areas of academics, behavior, social emotional learning and AI. Include relevant information related to age restrictions, cost of program or app, confidentiality, and ways to promote accessibility. **Due 12/09/24**

Final Examination or Evaluation

In place of a final exam, students will present their resources and provide a download of the resource to share with peers.

✓ Grading Information

1. All assignments are due on the assigned date at the assigned time and must be submitted through **CANVAS**. Emailed or paper copies of assignments cannot be accepted. If an extension on an assignment is required, the department late policy requires that students contact the instructor at least 24 hours in advance of the due date with the request. The request must include a designated date on which the student intends to submit the assignment, which should be within one week of the original due date.

1. All written work must be turned in using Microsoft Office Word. The Microsoft Office Suite is available *for free* from the university. If you do not have Microsoft Office on your computer, please refer to [Information Technology Services](http://its.sjsu.edu/services/software/microsoft-students/index.html) (<http://its.sjsu.edu/services/software/microsoft-students/index.html>) for information on how to download the software on your device. Assignments turned in using Google Docs, Apple Pages, or PDF format will be returned and the student will need to resubmit.

Grade	Percentage
A	94-100%
A-	90-93%
B+	86-89%
B	83-85%
B-	80-82%
C+	76-79%
C	73-75%
C-	70-72%
D+	66-69%
D-	60-62%
F	0-59%

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>"

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Date	Topic	Assignments
Week 1 8/21/24-8/25/24	Introduction Course overview	All Module 1 Assignments and activities due 8/25/24
Week 2 8/26/24- 9/1/24	Assistive Technology in Special Education Overview TPE Standards/IEP Procedures	Complete Canvas readings and activities.
Week 3 9/2/24- 9/8/24	Culturally Responsive Teaching and Equitable practices using technology	Complete Canvas readings and activities.
Week 4 9/9/24- 9/15/24	Universal Design for Learning/ Differentiating Instruction Cast-UDL Guidelines Dr. Katie Novak	Complete Canvas readings and activities. Technology Laws Assignment assigned (due 9/22/24)

<p>Week 5</p> <p>9/16/24- 9/22/24</p>	<p>Technology laws and regulations,</p> <p>Digital Citizenship</p> <p>Technology learning standards</p>	<p>Complete Canvas readings and activities.</p> <p>Technology Laws Assignment due</p>
<p>Week 6</p> <p>9/23/24-</p> <p>9/29/24</p>	<p>Assistive Technology and Communication</p> <p>Communication Presentations</p>	<p>Complete Canvas readings and activities.</p> <p>Digital Citizenship Assignment assigned (due 10/13/24)</p>
<p>Week 7</p> <p>9/30/24-</p> <p>10/6/24</p>	<p>Assistive Technology and Reading (decoding, phonemic awareness, fluency, comprehension)</p> <p>Reading Presentations</p>	<p>Complete Canvas readings and activities.</p>
<p>Week 8</p> <p>10/7/24-</p> <p>10/13/24</p>	<p>Assistive Technology and Math (problem solving, word problems, fluency)</p> <p>Math Presentations</p>	<p>Complete Canvas readings and activities.</p> <p>Digital Citizenship assignment due 10/13/24</p>
<p>Week 9</p> <p>10/14/24- 10/20/24</p>	<p>Assistive Technology for science and social studies (VR, encyclopedia/research resources)</p> <p>Science Presentations</p>	<p>Complete Canvas readings and activities.</p> <p>Technology Intervention Plan Assigned (due 11/10/24)</p>
<p>Week 10</p> <p>10/21/24- 10/27/24</p>	<p>Assistive Technology for writing (voice to text, dictionary, story starters)</p> <p>Writing Presentations</p>	<p>Complete Canvas readings and activities.</p>
<p>Week 11</p> <p>10/28/24-11/3/24</p>	<p>Assistive Technology to support behavior (behavior reinforcement, behavior contracts, data collection)</p> <p>Behavior Support Presentations</p>	<p>Complete Canvas readings and activities.</p>

<p>Week 12</p> <p>11/4/24- 11/10/24</p>	<p>Artificial Intelligence (AI) & Special Education</p> <p>AI/ Presentations</p>	<p>Complete Canvas readings and activities.</p> <p>Technology Intervention Plan due 11/10/24</p>
<p>Week 13</p> <p>11/11/24-11/17/24</p>	<p>Accommodations using technology</p>	<p>Complete Canvas readings and activities.</p> <p>Resource Group Assigned due 11/17/24</p>
<p>Week 14</p> <p>11/18/24- 11/24/24</p>	<p>Technology for data collection and progress monitoring</p>	<p>Complete Canvas readings and activities.</p>
<p>Week 15</p> <p>11/25/24- 12/1/24</p>	<p>Thanksgiving Break (short week)</p>	<p>Complete Canvas readings and activities.</p>
<p>Final Exam</p> <p>12/2/24-</p> <p>12/8/24</p>	<p>Special education resource presentations</p>	<p>Resource Presentation due 12/8/24</p>