San José State University
Connie L. Lurie College of Education
EDEL 108D Curriculum: Mathematics Section 04 - 3 Units

Course and Contact Information

Instructor:	Gabrielle (Gaby) Bernal
Email:	gabrielle.bernal@sjsu.edu
Office Hours:	By appointment
Class Day:	Tuesdays & Thursdays / 4:00 pm - 8:15 pm
Classroom:	synchronous online
Class Sessions:	June 04 June 06 June 11 June 13 June 18 June 20 June 25 June 27 July 02

Course Format: Synchronous Online
This course will adopt an online synchronous (meeting virtually in real time) delivery format. Students will need access to a computer, tablet, or device with internet connectivity to access course meetings and content. Students are expected to complete the lecture, readings, assignments, and activities to be ready to engage in in virtual face-to-face active discussions and activities in class. Computer labs for student use are available in the Academic Success Center (http://www.sjsu.edu/at/asc) located on the first floor of Clark Hall and in the Associated Students Lab on the second floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available for loan in the SJSU/Martin Luther King Library.

Canvas Learning Management System
All course materials (announcements, syllabus, handouts, assignment instructions, lecture videos, etc.) will be available on Canvas. You are responsible for regularly checking both Canvas and your SJSU email (the one that ends with "sjsu.edu") to learn of any updates. For Canvas support, please review the Canvas Student Resources.

Appreciation
To ensure that we have the opportunity to learn together in this course, a shoutout to the faculty and staff who have made that happen is in order. Thank you to the TED and SPED faculty and staff, the IT team making it possible for us to connect.

Course Description
This course provides an overview of teaching and learning school mathematics P-12, incorporating curriculum, historical, sociocultural, autobiographical, identity, disability, and research methodology. The course will include a focus on instructional materials, listening to children, how children construct mathematical knowledge, and the implications of behavioral, developmental, and learning characteristics of P-12 students labeled with mild, moderate, and extensive

support needs. The course will also introduce information about the role of technology and challenges in teaching school mathematics.

It is important to make explicit that racism and ableism have persisted throughout our nation's history and in the context of schooling. To teach for justice and to be a transformative educator means addressing the constant forms of oppression facing intentionally marginalized groups of people. Mathematics is often used as a gatekeeper, especially for students with disabilities, disabled students, and Black and Brown Students. The humanity of students and their communities should be acknowledged across intersectionalities and thus the complexity of mathematics should be engaged.

To address the inequities and challenge the status quo, as a class, we will weave in theory, practice, and reflection with four major themes: 1) math content, 2) disability justice, 3) equity and social justice, and 4) teaching practices to explicitly disrupt patterns of inequity.

Program Information

The Teacher Education Program (TED) prepares teacher candidates to engage in social justice teaching practices, contribute to the development of cultural literacy, provide education that promotes democracy, and develop content knowledge expertise to teach in urban and suburban schools. The program additionally prepares teacher candidates to provide instruction for multilingual learners and students with special needs. Teacher candidates also will learn to set up a supportive classroom environment based on social-emotional learning principles and experience collaborative co-teaching experiences with successful mentor teachers in the field. Finally, teacher candidates will design, carry out, and report on classroom-based teacher inquiry.

Course Commitment

You should be prepared for class (readings, tasks, writings, etc.) and turn in all assignments. Please be sure to attend to details and deliver your work as you would for formal assessments, progress checks, and quick writes. For instance, your attention to larger assignments should include proofreading and bringing in the course's multiple dimensions, as well as materials learned and used across the program courses. During discussions, practice the critical work of listening and contributing to interact with colleagues and course instructor.

Program Learning Outcomes (PLOs) based on the California Commission for Teacher Credentialing Teacher Performance Expectations

Teacher candidates who successfully complete a Credential or Master's program will be able to:

- **PLO 1:** Graduates **assess** and **identify** the educational needs and strengths of students with disabilities.
- **PLO 2:** Graduates **critically evaluate** pedagogy, curricula and instructional materials grounded in quality indicators of evidence-based practices for students with disabilities.
- **PLO 3:** Graduates **plan**, **design**, **implement**, and **monitor** linguistically and culturally appropriate instruction that meets the unique needs of students with disabilities.
- **PLO 5:** Graduates **utilize** research-based knowledge and theoretical, conceptual and evidence-based practices related to individuals with disabilities to improve services and instruction in the field.
- **PLO 6:** Graduates **integrate** cultural and familial perspective into all aspects of instruction, including assessment and intervention.
- **PLO 8:** Graduates **demonstrate** knowledge about research-based practices related to individuals with disabilities, birth to 22 years.

Course Learning Outcomes (CLOs) based on the California Commission for Teacher Credentialing Teacher Performance Expectations

To support the development of the PLOs, this course addresses the following course learning outcomes (CLOs) to address the following CCTC Teacher Performance Expectations (TPEs) as mapped with current High Leverage Practices (HLPs) across populations of students with disabilities (Early Childhood Special Education [ECSE], Mild/Moderate Disabilities [M/M] and Extensive Support Needs [ESN]:

- **TPE 1:** Engaging and Supporting All Students in Learning
- **TPE 2:** Creating and Maintaining Effective Environments for Student Learning

- **TPE 3:** Understanding and Organizing subject Matter for Student Learning-Content Specific Pedagogy
- **TPE 4:** Planning Instruction and Designing Learning Experiences for All Students
- **TPE 5:** Assessing Student Learning
- **TPE 6:** Developing as a Professional Educator

Collaboration:

- **HLP1:** Collaboration with professionals to increase student success.
    - **ECSE 1.7**. Implement, monitor, and adapt instruction and intervention activities to facilitate young children's learning and progress in an ongoing, iterative manner in order to maximize young children's learning and outcomes. [Introduce]
- **HLP 3:** Collaborate with families to support student learning and secure needed services.
    - **ECSE 3.4.** Identify key content appropriate for young children as identified in the California Infant/Toddler and *Preschool Learning Foundations* for planning developmentally appropriate curriculum and learning activities for young children in the special education setting.
    - **M/M 2.11** Demonstrate the knowledge, skills and abilities to understand and address the needs of the peers and family members of students who have sustained a traumatic brain injury as they transition to school and present with a change in function. [Practice]

Assessment:

- **HLP 4:** Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.
    - **M/M 3.2/ESN 3.4** Demonstrate knowledge of disabilities and their effects on learning, skills development, social-emotional development, mental health, and behavior, and of how to access and use related services and additional supports to organize and support effective instruction. [Introduce]
    - **M/M 3.3** Demonstrate comprehensive knowledge of atypical development associated with various disabilities and risk conditions (e.g., orthopedic impairment, autism spectrum disorders, cerebral palsy), as well as resilience and protective factors (e.g., attachment, temperament), and their implications for learning. [Introduce]
- **HLP5:** Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs. [Introduce]
    - **ECSE. 5.1.** Demonstrate knowledge of age and developmentally appropriate purposes, characteristics, and uses of different types of assessment (e.g., authentic, play-based, dynamic, functional behavior assessment, family interviews, diagnostic, progress-monitoring, observational, and performance).

Social/emotional/behavioral:

- **HLP7:** Establish a consistent, organized, and respectful learning environment.
    - **U 1.3** Connect subject matter to real-life contexts and provide active learning experiences to engage student interest, support student motivation, and allow students to extend their learning. [Practice]
- **HLP8:** Provide positive and constructive feedback to guide students' learning and behavior.

Instruction [Introduction]:

- **HLP11:** Identify and prioritize long- and short-term learning goals.
    - **EX1.9** Monitor student progress toward learning goals as identified in the academic content standards and the IEP/Individual Transition plan (ITP).
- **HLP13:** Adapt curriculum tasks and materials for specific learning goals.
    - **U1.4** 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
- **HLP15:** Provide scaffolded supports.
- **HLP16:** Use explicit instruction.
- **HLP17:** Use flexible grouping.
- **HLP18:** Use strategies to promote active student engagement.
    - **U4.7** Plan instruction that promotes a range of communication strategies and activity modes between teacher and student and among students that encourage student participation in learning.
- **HLP19:** Use assistive and instructional technologies.

    - **U3.6** Use and adapt resources, standards-aligned instructional materials, and a range of technology, including assistive technology, to facilitate students' equitable access to the curriculum.
- **HLP20:** Provide intensive instruction.
- **HLP22:** Provide positive and constructive feedback to guide students' learning and behavior.

Required Texts/Readings

Textbooks

Lambert, Rachel. (2024) Rethinking Disability and Mathematics: A UDL Math Classroom Guide for Grades K-8, (1st edition). Thousand Oaks, CA; Corwin Press. ISBN: 9781071926031

Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M. (2019). Elementary and Middle School Mathematics: Teaching Developmentally, (10th edition). New York, NY: Pearson ISBN-13: 9780134802084

- Note: I highly recommend you get a print copy of this book. It will be your mathematics teaching/content resource throughout your career. The 9th or 8th editions will also serve well.

Highly Recommended Texts

Matthews, L. E., Jones, S. M., & Parker, Y. A. (2022). Engaging in Culturally Relevant Math Tasks, 6-12: Fostering Hope in the Middle and High School Classroom. Corwin Press

Matthews, L. E., Jones, S. M., & Parker, Y. A. (2022). Engaging in Culturally Relevant Math Tasks, K-5: Fostering Hope in the Elementary Classroom. Corwin Press.

Additional Readings (posted to Canvas as PDF)

Martinez, Ricardo. (2023) Rhyme and reason - why a university professor uses poetry to teach math. The Conversation.

Moses, Bob. (2021) Return to "normal" in education is not good enough. Imprint News.

Shalaby, Carla. *Troublemakers.* A letter to teachers (pp. 171 - 181).

Course Requirements and Assignments

SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on.

The goal of the course is to learn. While I understand the importance of grades in the schooling system, I want you to focus on the learning and note you are starting this class with an A+.

Course Core Assignments - See next page (p. 5) for a description

A note on the "Final Examination" or "Evaluation": The final examination or evaluation for the course will be "practice based." Students will engage in teaching "core lessons" modeled and practiced within the course. The final examination will take place according to the University finals schedule.

Classroom Protocol

Students are expected to participate actively in class sessions. Active participation may require the use of technology, math manipulatives provided by instructor, group or paired activities. In this class it is expected that we will each work to maintain a safer and respectful classroom community where all actively engage in doing mathematics, sharing ideas, and learning from one another. Together we will establish the norms for this course and edit this section as needed.

Attendance and participation are vital to your success in this course, since many of the activities and discussions completed during class cannot be found in the book. Not only will your regular attendance allow you to remain current on topics and assignments, it will enable you to enjoy the rich experience of investigating mathematics with your peers. If, for some reason, you are unable to attend a class, or you are not able to meet a due date, please alert me as soon as possible so we can agree on other arrangements.

Core Assignments

All assignments will be posted on Canvas.

Assignment Title	Overview	Objective	Points
Assignment #1: Syllabus Survey & Reading Reflections/ Discussions	Each student will be responsible for completing the weekly readings and responding to written prompts and discussion boards in Canvas. 1. Syllabus readings & surveys 2. Responding to reading reflections	Show a deeper connection with course materials, including theory, research, and teaching and learning mathematics.	40 points
Assignment #2: Critical Mathematics Autobiography / Journal / Paper / Art Compilation / Testimonio	Your mathematical K-12 and higher education experiences shape your mathematical identity. In this course, you will reflect on such experiences through two works, which may include art pieces.	Demonstrate a deep curiosity, learning, and expertise with regards to your teacher identity. Include the multiple aspects of your mathematical communities, relationships, and fully developed analysis explaining the connection to your art work.	40 points
Assignment #3: Unit Plan Analysis	Learning Cycle: Analyze a unit plan/learning cycle with a colleague or individually!	Annotate the unit plan standards analysis - prior, subsequent & understanding possible shift, backwards design, UDL, lesson assessment, and provide a reflection	40 points
Assignment #4: Lesson Plan Development	Develop a lesson with a colleague or individually about a mathematical idea that is exciting to you. This lesson plan will foster critical math learning that centers children's assets.	Incorporate learned topics related to math content, teaching practices, teaching for social justice, and disability, and demonstrate understanding of course materials as supplementary tools and references.	40 points
Assignment #5: Final Teaching Rehearsal & Reflection	You will teach 1) the opening or launch of your lesson plan, 2) one specific teaching move/practice of your choice, and 3) the closing of your lesson with at least one colleague!	Showcase your knowledge and learning by demonstrating mastery of the three dimensions of launching, enacting, and closing a lesson plan.	40 points

Assignment Objectives and Alignment with Learning Outcomes/Expectations

Assignment	Total Points	Percent of Grade	PLOs
Reading Reflections/Discussions	40 points	20%	PLO 1, 2, 6 & 8
Critical Mathematical Autobiography	40 points	20%	PLO 1, 2, 3, & 6
Unit Plan Analysis	40 points	20%	PLO 1, 2, 3, 5, 6, & 8
Lesson Plan Development	40 points	20%	PLO 1, 2, 3, 5, 6, & 8
Final Teaching Rehearsal & Reflection	40 points	20%	PLO 1, 2, 6, & 8
TOTALS	**200 points**	**100%**	

Grading Information

Descriptions of assignments, models, and grading rubrics will be discussed in class and are posted online on Canvas. For information on students' rights, responsibilities and greivance procedures refer to *"Policies and Procedures"* in the University Schedule of Classes.

Grading Policy

Assignments are opportunities to learn. To this end, students are invited to resubmit assignments with revisions for a higher grade. Resubmissions are expected to be submitted on the session following the assignment's initial return.

Descriptions of assignments, models, and grading rubrics will be discussed in class and are posted online on Canvas.

Grade Breakdown

Grades align with a total number of points as follows:

A+	200-195
A	194-187
A-	186-179
B+	178-175
B	174-169
B-	168-161
C+	160-155
C	154-149
C-	148-139
D	138-135
F	134 or below

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 15 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 practice. Other course structures will have equivalent workload expectations as described in the syllabus.

Classroom Expectations

Students should make efforts to…

a. Arrive on time to class. If you arrive late or need to miss class, please check with peers about what you missed.
b. Submit assignments on time. If you require an extension for an assignment, please submit an email request to the instructor at least 48 hours (2 days) before the due date. Only exceptions include documented emergencies (e.g. illnesses, accidents, family emergencies).

c. Take a break from social media during class. Reduce time on non-class related apps/websites.
d. Show respect for persons in class, consider how you might want to be treated.
e. Make the most of your time in class. Engage in class discussions, complete readings, and participate.

University Policies
Per University Policy 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) web page. Make sure to visit the listed pages to review and be aware of these university policies and resources.

Writing Support
Please make use of the writing support available through the university. Resources available on campus include:
1) LCOE Writing Tutor
2) SJSU Writing Center
3) Peer Connections
4) Student Success Center

Accessible Education Center
If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) to establish a record of their disability

SJSU Counseling and Psychological Services
The SJSU Counseling and Psychological Services is located on the corner of 7th Street and San Carlos in the new Student Wellness Center, Room 300B. Professional psychologists, social workers, and counselors are available to provide confidential consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit The CAPS Website.

Spartan Food Pantry
The Spartan Food Pantry is located at Diaz Compean Student Union recommended using the exterior entrance across from the Engineering Rotunda. This walk-in, full-service, staffed, food assistance program offers non-perishable goods, fresh produce, and refrigerated items to eligible students. To learn more about the hours, eligibility, process, or FAQ, visit The Spartan Food Pantry Website.

EDEL 108D Course Schedule

Note: The professor reserves the right to alter, add to, and/or delete the contents of this course calendar. Changes will be made according to the needs of a particular class and/or other unanticipated events. Students will be given advance notice of all adjustments to course requirements and due dates. *Supplemental reading or small assignments to facilitate classroom lectures/activities may be given throughout the semester. Students will be directed to Canvas for more information regarding these supplementary assignments.

Please note that all assignments should be done prior to the next class session in order to promote thoughtful discourse and questions. So Day 1's assignments are for day 2, day 2 for day 3, etc.

Session	Meeting Date	Location	Topics	Readings and Assignments	Assignment Due Date
1 (First Class)	**June 04**	**Online**	•Introductions & class norms •Brief history of math teaching •Learning to listen to mathematical thinking •Disability & mathematics from a critical perspective	**In-Class Jigsaw Reading:** • Lambert, Chapter 1: Trust in their thinking • Lambert, Chapter 2: Rethinking Disability • Lambert, Chapter 3: Rethinking Mathematics • Lambert, Chapter 4: Beyond the Binary of Inquiry Versus Explicit Instruction **Readings:** • Syllabus • Shalaby, Carla. Troublemakers A letter to teachers **Assignment:** • Syllabus Survey • Reading Reflection #1	**Tuesday, June 04**
2	**June 06**	**Online**	•UDL & Math •UDL, Math, & Disability Justice •CCSS Math, Standards for Mathematical Practice, & Math Framework •Distraction Principle	**In-Class Jigsaw Reading:** • SMPs • CCSS • Math Framework **Readings:** • Lambert, Chapter 5: What is Universal Design for Learning in Mathematics • Lambert, Chapter 6: Designing with UDL Math • Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M., Chapter 1: An Invitation to Learn and Grow (p. 9) **Assignment:** • Reading Reflection #2	**Friday, June 07**
3	**June 11**	**Online**	• Modeling addition • Subtraction •Lesson planning •Discussion Framework	**In-Class Reviewing a Lesson Plan:** ● Review SJSU lesson plan template ● 5 step pedogological ● HILL Framework **Readings:**	**Tuesday,**

				• Lambert, Chapter 7: Investing in Core Ideas • Lambert, Chapter 8: Designing to Support Language Variability • Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M. Chapter 11: Developing Strategies for Addition and Subtraction Computation • **Optional:** Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M., Chapter 4: Planning in teh Problem-Based Classroom (pp. 55 - 66) **Assignment:** • Reading Reflection #3	**June 11**
4	**June 13**	**Online**	•Multiplication •Division •Leading a discussion strategies •Literacies in math	**In-Class Reviewing a Lesson Plan:** ● Review SJSU lesson plan template ● 5 step pedogological ● HILL Framework **Readings:** • Lambert, Chapter 9: Designing for Understanding of Mathematical Models • Lambert, Chapter 10: Designing for fact fluency • Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M., Chapter 12: Developing Strategies for Multiplicaiton and Division Computation **Assignments:** • Reading Reflection #4 • Unit Plan Analysis	**Friday, June 14**
5	**June 18**	**Online**	•Current Practices •Number strings, Math Talks, Questioning, Problem of the Day •Diversity, equity, inclusion, and justice in math education •Praise, affirmation, & feedback	**In-Class Mathematical Literacy:** ● Moses, Bob. (2021) Return to "normal" in education is not good enough. Imprint News. **Readings:** • Lambert, Chapter 11: Developing Student Strategies Through Number Strings • Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M., Chapter 4: Planning in the Problem-Based Classroom (p. 66 - 81) **Assignments:** • Reading Reflection #5	**Tuesday, June 18**

6	**June 20**		•Communicating with families & colleagues •Relationships with the community •Connecting with students •Multiple representations	**In-Class Resource Padlet:** ● Questions, Concerns, & Finding Resources **Readings:** • Lambert, Chapter 12: Supporting Relationships and Community in Math Class • Lambert, Chapter 13: Connecting Multiple Representations • Martinez, Ricardo. Rhyme and reason - why a university professor uses poetry to teach math. **Assignments:** • Reading Reflection #6 • Lesson Plan Feedback Draft	**Friday, June 21**
7	**June 25**	**Online**	•Assessment in Math •Math Goals •Plan Teaching •Rehearsals	**In-Class Resource Padlet:** ● Questions, Concerns, & Finding Resources **Readings:** • Lambert, Chapter 14: Rethinking Assessement for Equity • Lambert, Chapter 15: Reimagining Math Goals in Individualized Education Plants • Van de Walle, J.A., Karp, K. S., Bay-Williams, J. M. Chapter 5: Creating Assessments for Learning **Assignments:** • Reading Reflection #7 • Critical Mathematical Autobiography	**Tuesday, June 25**
8	**June 27**	**Online**	•Recording Teaching Rehearsals	**Readings:** ● Podcast of choice or see resource padlet **Assignments:** • Lesson Plan	**Friday, June 28**
9 (Last Class)	**July 02**	**Online**	•Wrapping up the course	**Readings:** ● Material of choice or see padlet **Assignments:** • Final Recording & Reflections Teaching Rehearsals due in CANVAS	**Monday, July 08**