

EDUC 287B - Secondary Math Methods II

Term: Winter 2025

Credits: 3 units

Course Day & Times: Tuesdays 5-8pm

Location: GH 205

Instructor Information

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Office Location: GH 255

Office Hours: Tuesdays 4:15-4:50 pm or by appointment

Course Description

EDUC 287B (Secondary Math Methods II) course is Part 2 of a two-course sequence in secondary mathematics teaching methods. This sequence is designed to provide teacher candidates with a coherent set of experiences to teach mathematics for equity and justice. Through assigned readings, classroom discussions, rich mathematics activities, and assignments that require facilitation of mathematics tasks in your field placement, you will be supported to create mathematics classrooms that foster a culture of growth mindset and support students' mathematical sense making in ways that honor students' experiences and thinking. Through thinking about ourselves as teachers, examining classroom culture and structures, facilitating mathematical discussions, and assessing student work, we will set the stage for our development as secondary mathematics teachers.

Respect for Diversity

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diverse identities (e.g., those based on gender, sexuality, disability, age, socioeconomic status, ethnicity, race, religion, and culture). Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

Land Acknowledgment

Santa Clara University occupies the unceded ancestral homeland of the Ohlone and Muwekma Ohlone people.

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Mission and Goals of the Department of Education

Rooted in the Jesuit tradition at Santa Clara University, the mission of the Department of Education is to prepare professionals of competence, conscience, and compassion who will promote the common good as they transform lives, schools, and communities. Our core values of reflective practice, scholarship, diversity, ethical conduct, social justice, and collaboration guide both theory and practice.

Faculty, staff, and students in the Department of Education:

1. Make student learning our central focus
2. Engage continuously in reflective and scholarly practice
3. Value diversity
4. Become leaders who model ethical conduct and a commitment to social justice
5. Seek collaboration with others in reaching these goals

MATTC Program Learning Goals (PLGs)

The PLGs represent SCU's Masters of Arts in Teaching and Teaching Credential (MATTC) program's commitment to individuals who earn their multiple or single subjects credential at Santa Clara University. The MATTC faculty focus on ensuring each student will begin their teaching career ready to:

1. Engage and Support All Students in Learning.
2. Create productive, supportive learning environments.
3. Teach for student understanding.
4. Make evidence-based instructional decisions informed by student assessment data.
5. Improve their practice through critical reflection and collaboration.
6. Apply moral and ethical principles in their professional practices.
- 7.

The PLGs guide our program. Therefore, all MS/SS teaching credential program course objectives are cross-referenced with the PLGs. (A fully elaborated version of the MS/SS PLGs can be found in the Teacher Candidate Handbook, Pre-Service Pathway.)

Course Objectives

This course will develop students' knowledge of or skills related to:		Goals/Standards Addressed			
		DG #	PLG #	TPE #	MMSN TPE #
1	<i>Examining knowledge, beliefs, and assumptions about mathematics, teaching, and students</i> , with particular attention to the impact language, culture, socio-economic status, and identified disabilities have had on mathematical learning opportunities.	2	5,6	1.4, 6.1	
2	Increasing knowledge of mathematics <i>content</i> and <i>pedagogical content knowledge</i> .	1	1	1.3, 1.4, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.3, 4.4, 4.5, 4.8,	

				5.1, 5.2, 5.3	
3	Increasing theoretical knowledge and practical experience in <i>planning</i> , <i>teaching</i> , and <i>assessing</i> mathematics learning, with particular attention for how to <i>modify</i> teaching to meet the needs of diverse learners while maintaining the <i>cognitive demand</i> of tasks.	1,3	1,3,4	1.3, 1.4, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.3, 4.4, 4.5, 4.8, 5.1, 5.2, 5.3, 5.8, 7.1, 7.7, 7.9	
4	Understanding the mathematical needs of a diverse range of students and adopting an <i>asset-based view</i> of students and families, particularly from populations that have traditionally been positioned as low <i>status</i> in mathematics classrooms.	1,3	1,2,3	1.3, 1.4	
5	Understanding the complexities of diverse, multiple-ability classrooms while broadening your repertoire of teaching techniques to <i>engage</i> all students, including students with identified disabilities, in rich, complex, and multi-dimensional mathematics.	2,5	1,2	1.3, 1.4, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.3, 4.4, 4.5, 4.8, 5.1, 5.2, 5.3, 7.1, 7.7, 7.9	
6	Learning from experiences in schools through informed reflection.	2,4	5	6.1	
*DG=Department Goals; PLG=Program Learning Goal; TPE=Teaching Performance Expectation Standard; MMSN TPE=Mild Moderate TPEs					

Required Resources (including readings)

[add text here...]

Graded Assignments

Assignment Title	Due Date	Points	TPEs Addressed
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Classroom Norms Assignment	Monday 1.20.24	10	1.3
Modifying Task Assignment	Monday 2.3.24	30	1.3, 1.4, 3.1, 3.2, 3.3, 3.4., 3.5, 4.1, 4.3, 4.4, 4.5, 4.7, 5.2, 5.5
Data Talk Assignment	Monday 3.10.24	10	1.3 , 1.4, 3.1, 3.2, 3.3, 3.4., 3.5, 4.1, 4.3 , 4.4, 4.5, 4.7
Multidimensional Math Task Assignment	Friday 3.21.24	50	1.3, 1.4, 3.1 , 3.2, 3.3 , 3.4., 3.5 , 4.1 , 4.3, 4.4 , 4.5, 4.7 , 4.8, 5.1 , 5.2, 5.3 , 5.5, 5.8 , 7.1, 7.7, 7.9

Note: Descriptions and rubrics for major course assignments can be found on Camino.

Grading Criteria

1. All written and oral assignments must reflect graduate-level standards. As a future teacher, you must be able to model communication skills for your students.
2. Attendance and participation in all class meetings is required. If you are going to be absent from class, you must notify the instructor of your absence. You will still be responsible for all missed content and in-class work (see Attendance Policy below for more details).
3. Letter grades are assigned based on overall percentage, as follows:

A	94-100%	C+	77-79%
A-	90-93%	C	74-76%
B+	87-89%	C-	70-73%
B	84-86%	D+	67-69%
B-	80-83%	D	63-66%

Your grades will be visible in Camino.

4. For assignments done in groups, all group members will receive the same grade, unless otherwise stated.

5. Final grades will reflect students' contributions (e.g., attendance, class discussions, quality of presentation, ability to lead discussion groups, completion and quality of course assignments), critical thinking and ability/degree to which student integrates theory, research and practice.

6. All assignments are expected to be submitted on their due dates. This is a professional preparation program. All assignments are expected to be submitted on their due dates. As a professional, if you need an extension be sure to reach out to your instructor at least five days prior to the due date. Unless you have made special arrangements beforehand, late assignments may receive at most a 10% penalty at the instructor's discretion.

Course Outline

Week (Date)	Topic	Readings & Relevant Activities	Assignments
Session 1 1/7	Classroom Norms & Culture	<ul style="list-style-type: none"> Kazemi, E. (1998). Discourse that promotes conceptual understanding. <i>Teaching Children Mathematics</i>, 4(7), 410 - 414. Boaler. (2014). Positive Classroom Norms. youcubed.org Boaler (2024). What I wish.... 	Assignment: Classroom Norms Assignment
Session 2 1/14 (Invite cooperating teachers, colleagues, and/or supervisors)	Modifying Tasks	<ul style="list-style-type: none"> Review: Stein, M. K., Smith, M. S., Henningsen, M. A., & Silver, E. (2000). Implementing standards-based mathematics instruction. (Cognitive Demand) Introduction and Ch 1&2. 	Due by 11pm 1/20: Norms Assignment Assignment: Modification of Task Assignment
Session 3 1/21	Lesson Planning & Assessing Mathematical Proficiency	<ul style="list-style-type: none"> Smith et al. (2008). Thinking through a lesson. <i>Mathematics Teaching in Middle School</i>. Andrade, H. (2000). Using rubrics to promote student learning. ACSO. Review slides on lesson objectives/goals 	Bring to Class: Student work samples from modification of task assignment (write up not due yet) Assignment: Complex/Multidimensional math task

Session 4 1/28	Lesson Planning (Part II) Complex Tasks	<ul style="list-style-type: none"> • Jackson, K. J., Shahan, E., Gibbons, L., & Cobb, P. (2012). Setting up complex tasks. <i>Mathematics Teaching in the Middle School</i>, (January), 1–15. • Review Universal Design Framework: https://udlguidelines.cast.org/ 	<p>Due by 11pm on Monday 1/27: Modification of Task Assignment Write Up</p> <p>Due in class 1/28: Bring a copy of Complex/Multi-dimensional Task (task only)</p>
Session 5 2/4 (asynchronous online session)	The Role of Technology in Math Class	<ul style="list-style-type: none"> • NCTM. (2021). Equitable Integration of Technology for Mathematics Learning (2 paragraphs) • Gee, J. (2007). Good video games and good learning. 	
Session 6 2/11	Supporting Discourse in Math Class (Part I) Launching Tasks	<ul style="list-style-type: none"> • Chapin et al., (2003). The Tools of Classroom Talk. Ch 2 Review: Herbel-Eisenmann & Breyfoyle – Questioning our pattern of questioning (2005) 	<p>Due by 11pm Sunday 2/9: Draft of Multidimensional Task Lesson Plan</p>
Session 7 2/18	Teaching for Social Justice	<p>You will be assigned <u>one</u> reading:</p> <ul style="list-style-type: none"> • Rethinking Mathematics. Chapter 1. 	<p>Assignment: Data talk assignment</p>

(asynchronous online session)		<ul style="list-style-type: none"> • TODOS. Mathematics Education through the lens of social justice. 	
Session 8 2/25	Supporting Discourse in Math Class (Part II) Assessment Revisited Individual Meetings w/Kathy	<ul style="list-style-type: none"> • See Week 6 readings 	
Session 9 3/4	Status Revisited	<ul style="list-style-type: none"> • Lambert, R. (2018) “Indefensible, Illogical, and Unsupported”: Countering Deficit Mythologies about the Potential of students with Learning Disabilities in Mathematics. • Review: Cohen, E. & Lotan, R. (1999). Complex instruction: Equity in cooperative learning classrooms (from EDUC 287A) 	Due by 11pm Monday 3/10: Data talk assignment
Session 10 3/11	History of Learning in Math Education & Learning from Practice	<ul style="list-style-type: none"> • Lambdin, D., & Walcott, C. (2007). Changes through the years: Connections between psychological learning theories and the school mathematics curriculum. 	Due by 11pm Friday 3/21: Multidimensional Task Assignment final write up

Professional Conduct Expectations

Attendance & Punctuality

Regular attendance at all class meetings is a requirement in this program. Ten percent will be deducted from your final grade for the course for each unexcused class session you missed. Each student will be granted one Emergency Release (ER) per course. Your ER excuses you from one class session. To use your ER you must notify the instructor by email or phone BEFORE class. Save your ER for medical issues, family demands, car trouble, etc.

Students will not be penalized for absences due to the observance of religious holidays that fall on our scheduled class day; please give the instructor advance notice of these absences so they can make the necessary accommodations.

Coming to class (and returning from breaks) on time is another course requirement. Your first unexcused lateness will have no consequences, and subsequent unexcused lateness may result in a 1% reduction in overall grade for each instance.

Note: Points lost due to poor attendance and/or lack of punctuality will be deducted from your final grade. A student with excellent grades on assignments and other aspects of professional conduct can earn a poor course grade as a result of excessive absence or chronic tardiness.

Participation

Your participation in whole class discussions and group work is essential for the success of this course. We, as educators committed to equitable education, will engage in respectful, thoughtful participation in class activities and discussion. To fully participate in the course activities, the assignments must be completed before the class session in which they are due. The quality of our class sessions and the depth of your learning depend directly on your prepared participation.

While class is in session, you should not engage in any activity not directly related to what is taking place in the classroom. Instructors reserve the right to ask you to close your laptop or put away some other form of technology at their discretion; when/if this occurs, please respond quickly and without protest to avoid further disruption of the class's learning. Instructors also reserve the right to ignore your inappropriate use of technology in class and simply deduct points from your final grade. If you would like more detailed clarification about the expectations regarding appropriate and inappropriate in-class technology use, please feel free to contact your instructor for further information.

Communication

Email using our SCU email address will be our primary means of communication outside of class. You must check your SCU email and our course's Camino site every day to ensure you maintain a connection with the course content, your classmates, and your instructor

Academic Integrity

The Academic Integrity pledge is an expression of the University's commitment to fostering an understanding of— and commitment to—a culture of integrity at Santa Clara University. The Academic Integrity pledge, which applies to all students, states:

I am committed to being a person of integrity. I pledge, as a member of the Santa Clara University community, to abide by and uphold the standards of academic integrity contained in the Student Conduct Code.

Academic integrity is part of your intellectual, ethical, and professional development. I expect you to uphold the principles of this pledge for all work in this class. I will clarify expectations on academic integrity -- including the use of AI tools such as ChatGPT and course sharing sites for all assignments and exams in this course. If you have questions about what is appropriate on any assignment, please let me know before you hand in work. For more resources about ensuring academic integrity in your work, see this [LibGuide on Academic Integrity](#).

If an instructor has reason to feel you are not meeting all the expectations as outlined in the syllabus, they will contact you privately to discuss the issue, to clarify the expectations as needed, and to offer their support in helping you reach those expectations. If your instructor does not contact you with a concern, you can assume you are satisfying these requirements. However, if you would like specific feedback on your professional conduct during the quarter, you are welcome to contact your instructor at any time and s/he will be glad to share their assessment with you.

Policies, Resources & Accommodations

Discrimination, Harassment, and Sexual Misconduct (Title IX)

Santa Clara University is committed to providing all students with a safe learning environment free of all forms of discrimination, sexual harassment, and sexual violence.

Please know that as a faculty member, California law SB 493 requires me to report any information brought to my attention about incidents of sexual harassment or misconduct to the SCU [Equal Opportunity and Title IX Office](#) (408) 551-3043. This includes, but is not limited to, disclosures in writing assignments, class discussions, and one-on-one conversations.

Should you need support, SCU has dedicated staff trained to assist you in navigating campus resources, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and filing a formal complaint with the University or with law enforcement. Please see the [Student Resources](#) page for more information about reporting options and resources.

If you or someone you know has experienced sexual harassment or sexual violence and wishes to speak to a confidential resource who is not required to report, please contact one of the following SCU resources for support:

- [SCU Wellness Center](#)
- [CAPS](#)

- Any individual (clergy, counselors) acting in a professional capacity for which confidentiality is mandated by law

I am happy to help connect you with any of these resources.

Accommodations for Pregnant and Parenting Students

Santa Clara University does not discriminate against any student on the basis of pregnancy or related medical conditions. Absences due to medical conditions relating to pregnancy and childbirth will be excused for as long as deemed medically necessary by a student's doctor, and students will be given the opportunity to make up missed work. Students needing accommodations can often arrange accommodations by working directly with their instructors, supervisors, or departments. Students needing accommodations can also seek assistance with accommodations from the Office of Accessible Education (OAE) or from the Office of Equal Opportunity and [Title IX Office](#). This [resource page](#) from Title IX provides information for students and faculty regarding pregnancy rights.

Office of Accessible Education

If you have a documented disability for which accommodations may be required in this class, please contact the Office of Accessible Education oae@scu.edu, <https://www.scu.edu/oae> as soon as possible to discuss your needs and register for accommodations with the University. If you have already arranged accommodations through OAE, please be sure to request your accommodations through your my OAE portal and discuss them with me during my office hours within the first two weeks of class. To ensure fairness and consistency, individual faculty members are required to receive verification from the Office of Accessible Education before providing accommodations. OAE will work with students and faculty to arrange proctored exams for students whose accommodations include double time for exams and/or assistive technology.

Students with approved accommodations of time and a half should talk with me as soon as possible. The Office of Accessible Education must be contacted in advance (at least two weeks' notice recommended) to schedule proctored examinations or to arrange other accommodations.

In light of shifting health advisories related to COVID-19, exams may be administered online. Students with approved testing accommodations should contact me (at least two weeks' notice recommended) prior to the exam date to notify me of their intent to use their testing accommodations on the upcoming exam to ensure their accommodations are effectively implemented.

Safety Measures

In order to meet our learning objectives, we will adhere to the highest standards for safety and mutual respect. University policy allows faculty to require the use of face coverings in their classrooms. I may request that students wear face coverings occasionally or throughout the academic term. Failure to comply with my request is a violation of the [Student Conduct Code](#), which I will need to report.

Use of Classroom Recordings

All online class meetings will be recorded and made available on Camino. As is stated in the [Student Conduct Code](#): “...Dissemination or sharing of any classroom recording without the permission of the instructor would be considered “misuse” and, therefore, prohibited. Violations of these policies may result in disciplinary action by the University. At the instructor’s discretion, violations may also have an adverse effect on the student’s grade.”

Copyright Statement

Materials in this course are protected by the United States copyright laws. I am the copyright holder of the materials I create, including notes, handouts, slides, and videos. You may make copies of course materials for your own use and you may share the materials with other students enrolled in this course. You may not publicly distribute the course materials without my written permission.

Technology Support

Course materials and online activities will be available on SCU’s Canvas learning management system (also known as Camino). Course reminders, readings, and assignments will be available through Camino. SCU can provide you with technical assistance, and you can also reach out to our providers directly for questions. For Camino support, contact caminosupport@scu.edu or call 408-551-3572.

You can also find support resources via the help button within the Camino platform (on the left-hand navigation) to access after-hours support via email, chat, or phone.

For Zoom assistance, contact Media Services at mediaservices@scu.edu or 408-554-4520. You can also get support from the [SCU website](#) or the [Zoom Help Center](#) website.

For SCU network and computing support, contact the SCU Technology Help Desk at techdesk@scu.edu or 408-554-5700. They can provide support for MySCU Portal, Eduroam, Duo, hardware and software issues, and more.

Wellness

I know you will do the best you can in this class (and all of your classes); however, it should never be at the expense of your own mental and physical health and your overall well-being. Jesuit education is grounded in *cura personalis*, concern for the whole person—mind, body, and spirit. What does this mean for you? Be kind to others, and more importantly, be kind to yourself. Attend to your sleep (quantity and quality); drink lots of water; move; get outside; and pay attention to beauty that isn’t coming to you on a screen. Eat good food, laugh, enjoy friends and family, look for opportunities to connect with others in new ways, pray, meditate, or otherwise attend to your spirit. And ask for help, even if you don’t think you need it. Lots of folks, including me, are here to support you. It’s never too late to reach out, and I am committed to helping you.

SCU has many resources and programs to support you. These resources may be especially helpful:

Wellness Center

The Wellness center (<https://www.scu.edu/wellness>) provides resources to aid and promote student well-being across the eight dimensions of wellness, including student peer groups for healthful living, violence prevention, and recovery.

CAPS

Santa Clara students are provided confidential counseling sessions at no cost through Counseling and Psychological Services (CAPS; <https://www.scu.edu/cowell/counseling-and-psychological-services-caps/>). Students have access to clinically appropriate, short-term therapy; group therapy; and other resources for care. A new 24/7 support line is also available: 408-554-5220.

SCU Culture of Care

If you are concerned for the mental or physical welfare of one of your peers, the [Office of Student Life Culture of Care](#) website provides resources for recognizing and helping someone in distress.

Academic Concerns

If you are concerned with your progress in this class, please contact me so that we can find solutions together.

SCU also has options for free academic tutoring. Students can make appointments to discuss work in a range of courses:

- [The HUB Writing Center](#) (Writing and Public Speaking)

Gender Inclusive Language

This course affirms people of all gender expressions and gender identities. If you go by a name different from what is on the class roster, please let me know. Using correct gender pronouns is important to me, so I encourage you to share your pronouns with me and correct me if I make a mistake. If you have any questions or concerns, please do not hesitate to contact me. For more on personal pronouns see www.mypronouns.org