

COURSE SYLLABUS
EDUC 4302.060
Fall 2026
Math Problem Solving in Secondary Education

Semester: Fall 2026

Online Course

Instructor Information: Josh Loeffler

Office Hours: In-Person- Mondays 5:50-6:50 PM in BEP 213 by Appointment

Online- Tuesdays and Thursdays 7:00-8:00 PM by Appointment

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Course Catalog Description: Topics in teaching mathematical content in 7-12 mathematics classrooms through mathematical problem-solving strategies and technology designed around problem- and project-based instruction. Pre-requisite: Admission into the School of Education's UTeach program.

Course Topics and/or Student Learning Outcomes The student is expected to...	Activities	Assessment (including performance-based)	Standards Alignment
Research, identify, examine, and discuss the historical principles and strategies of problem solving in the mathematics classroom.	Online discussions and Activities Readings	Reading Assignments Problem Sets Exams and Final Exams	Mathematics 7-12 Standards: Standard VI INTASC Standards: 4 and 5 TEKS: 111.1-111.26
Solve and analyze non-routine problems addressing mathematical content in the Middle and High School Standards.	Online discussions and Activities Readings	Reading Assignments Problem Sets Exams and Final Exams	Mathematics 7-12 Standards: Standards I-VI INTASC Standards: 4 TEKS: 111.1-111.26
Research and implement best practices in authentic problem- and project-based learning.	Online discussions and Activities Readings	Reading Assignments Problem Sets Exams and Final Exams	Mathematics 7-12 Standards: Standard VII INTASC Standards: 4 and 5 TEKS: 111.1-111.26

Evaluation and Grading

Grading is based on the total number of points accumulated by each student at the end of the semester for all evaluations including class activities, assignments, and exams.

Assignments and point values are subject to change. Canvas will have all assignment details.

A = 90-100% B = 80-89% C = 70-79% D = 60-69% F = 0-59%

Last Day to Withdraw from Courses: October 30th, 2026

Communication

My preferred method of communication is email. I will endeavor to reply to all emails within 24 hours during weekdays and by the next weekday on weekend correspondence, if not sooner.

Required Book

Productive Math Struggle: A 6-Point Action Plan for Fostering Perseverance (SanGiovanni, Katt, & Dykema 2020) ISBN-13: 978-1544369464

Suggested Book

Sweller's Cognitive Load Theory in Action (Lovell 2020) ISBN-13: 978-1913622237

Course Online Schedule

Topics and Assignment dates will be available through the Canvas course that will launch the first day of classes. New modules will be available on Monday of every week.

Course Policies

- **Participation:** Participation is imperative to success in this course. Students are expected to regularly review Canvas, check email, and contribute to course assignments.
- **Written Assignments:** Written assignments must be typed using double spaced lines and should reflect a professional quality in terms of scope, depth, writing mechanics, and appearance. Proofread all assignments as only materials with minimal or no errors will receive high scores. Type assignments in an easily readable 12-point font (e.g. Times New Roman, Arial, Calibri).
- **Late Work:** No late assignments will be accepted unless prior arrangements have been made with the professor. All late assignments or non-submitted assignments will receive a score of zero points. Due dates will be found in Canvas, and all assignments will be submitted via Canvas.
- **Academic Dishonesty:** Students need to use their own words when completing all assignments. A zero will be given for any assignment that is detected as being plagiarized. Students are subject to a failing grade in the course if plagiarism is found. Using AI tools without appropriate acknowledgement and citation violates the UT Tyler's Honor Code and constitutes plagiarism. AI tools will not be permitted on assignments unless noted by the professor.
- **Canvas:** Students will access class notes, assignments, grades and course information through Canvas. Any changes to the course schedule, schedule of assignments, or any special assignments will be posted on Canvas. Students are expected to regularly check Canvas for updates and to download any class handouts.

School of Education Mission:

The School of Education prepares educators and leaders who transform lives through learning. Through excellence in teaching, scholarship, innovation, and partnership, we strengthen the educator workforce, advance educational opportunity, and improve outcomes for learners, schools, and communities across East Texas and beyond.

Texas Education Standards:

The School of Education are committed to teaching and implementing the Texas Educator Standards at the highest level. The School of Education faculty use the Texas Education Standards, along with the Interstate New Teacher Assessment and Support Consortium (InTASC) standards used by educator preparation programs throughout the United States.

The list of Texas Education Standards can be accessed: [19 TAC §149.1001 – Teacher Standards](#)

The Code of Ethics and Standard Practices for Texas Educators can be accessed [here](#).