



ELED 4313.001: Teaching Mathematics in the Elementary School, Fall 2025

Face to Face

Thursday 10:00am-12:45pm BEP 218

Instructor Information

Yasemin Gunpinar, Ph.D., Assistant Professor of Mathematics Education

Office: BEP 241

Office Hours: Mondays 9:00am-12:00pm or by appointment

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Indication of best way to contact the instructor: Email

Last Day to Withdraw from Courses: November 3, 2025

Course Catalog Description

Scope and sequence of the elementary mathematics curriculum, materials, and selected instructional techniques. Prerequisites: MATH 1350, MATH 1351, and admission to Educator Preparation Program and Phase III Field Based course.

Student Learning Outcomes & Assessments

The students will:

- Demonstrate an understanding of mathematical content from the elementary school grade levels. (3.A)
 - Number concepts and operation
 - Algebraic thinking
 - Geometry
 - Measurement
 - Probability and statistics
- Demonstrate an understanding of mathematical processes and reason mathematically. (3.A, 3.C)
- Solve mathematical problems and make connections within and outside of mathematics. (3.A, 3.C)

Learning Outcome	Activities	Assessment	Standards
Demonstrate an understanding of teaching mathematics in the elementary classroom	Chapter Readings	Math, Me, and My Philosophy	Texas Educator Standards: 1bii, 1biii, 1ci; 2bi, 2bii, 2biii, and 2ciii; 3ai, 3aii, 3aiii, 3bi, 3bii, 3biii, 3ci, 3cii, and 3ciii INTASC Standards: 1, 2, 4, 5 and 8
	Small group discussions and activities	Material Demonstration and Presentation	
	Group Projects	Children's Literature Lesson Plan & Presentation	
	Lesson Planning	Inquiry Lesson Plan	
		Midterm and Final Exams	

Demonstrate an understanding of mathematical processes and reasoning	Chapter Readings Small Group Discussions and Activities	Homework Assignments MidTerm and Final Exams	TEKS: Math process standards K-6 INTASC: 4, 5 Texas Educator Standards: 3A, 3C CCRS: Math VII, IX
Solve mathematical problems and make connections within and outside of mathematics	Small Group Discussions and Activities Chapter Readings	Homework Assignments MidTerm and Final Exams	TEKS: Math K-6 INTASC: 4, 5 Texas Educator Standards: 3A, 3C CCRS: Mathematics X

COURSE TEXTBOOK

Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2023). *Elementary and middle school mathematics: Teaching developmentally* (11th Ed.). Boston: Pearson Education, Inc. (ISBN-13# 978-0-9780136818038)

Students are under no obligation to purchase their books from the University Bookstore.

COURSE EVALUATION AND REQUIREMENT DESCRIPTION

- 1. Homework Assignments** **20% of Final Average**
--Students are expected to read required textbook chapters and complete online discussion board.
- 2. Math, Me, and My Philosophy Paper** **5% of Final Average**
--Each student is also required to write a 3-5 page paper discussing their personal *history and relationship* with mathematics from elementary school through college *followed by their philosophy* of teaching mathematics.
- 3. Material Demonstration Paper and Presentation** **20% of Final Average**
-- Each pair of students will become proficient with selected manipulative material and will present the use and benefits of the material to the whole class in the class. A written report on the use of the material must be prepared.
- 4. Children's Literature Lesson Plan & Presentation** **15% of Final Average**
--Group of two students will prepare a lesson using a children's literature book, appropriate for the elementary school grade levels, of their choice.
- 5. Inquiry Lesson Plan & Peer Teaching** **20% of Final Average**
-- Each student will complete an inquiry lesson plan connected to chapter readings, web research, classroom observations, field requirements.
- 6. Exams** **20% of Final Average**
--Students in this course will complete two exams in this course that will evaluate the students' knowledge of content from the textbook and from classroom activities and lessons.

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

Assignments are typically evaluated within one week of deadline submission.

Optional Text and Materials

Burns, M. (2000). *About teaching mathematics: A K-8 resource*. Sausalito, CA: Math Solutions Publications.

Carpenter, T., Fennema, E., Franke, M. L., Levi, L., & Empson, S. B. (2015). *Children's mathematics: Cognitively Guided Instruction*. Portsmouth, NH: Heinemann. 2nd Edition

Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2006). *Learning mathematics in elementary and middle schools: A learner-centered approach* (4th Ed.). Upper Saddle River, NJ: Pearson Education.

Donovan, M. S., & Bransford, J. D. (Eds) (2005). *How students learn: History, mathematics, and science in the classroom*. Washington, D.C.: The National Academies Press.

National Council of Teachers of Mathematics (2000). *Principles and Standards for School Mathematics*.

Reston, VA.: Author.
 National Council of Teachers of Mathematics (2014). *Principles to actions: Ensuring mathematical success for all*. Reston, VA: Author.
 Philipp, R., & Cabral, C. P. (2005). *IMAP: Integrating mathematics and pedagogy to illustrate children's reasoning*.
 San Diego State University Foundation.
 Reys, R.E., Lindquist, M. M., Lambdin, D. V., & Smith, N. L. (2014). *Helping children learn mathematics* (11th Ed.). New York: John Wiley & Sons Inc.. ISBN : 978-1-118-65410-1
 Smith, M. S., & Stein, M. K. (2018). *5 practices for orchestrating productive mathematics discussions* (2nd ed.). Reston, VA: National Council of Teachers of Mathematics (NCTM).

Internet Resources

TEA <http://www.tea.state.tx.us/>
 National Technology Standards
<https://www.iste.org/iste-standards>
 National Council of Teachers of Mathematics
<http://www.nctm.org>
 National Library of Virtual Manipulatives
<http://nlvm.usu.edu/en/nav/vlibrary.html>
 Shodor Interactivate
<http://www.shodor.org/interactivate>
 WisWeb: <http://www.fi.uu.nl/wisweb/en/>
 Database search for educational journals
<http://library.utt Tyler.edu/>

Creative Publications
https://www.isbns.net/author/Creative_Publications
 EAI Education www.eaieducation.com
 Texas instruments <http://education.ti.com/>
 AIMS www.AIMSedu.org
 Eye on Education
<https://www.routledge.com/go/routledge-eye-on-education>
 Casio
<https://www.casio.com/us/calculators/education/>
 NASCO www.eNASCO.com

Course Policies:

- **Attendance.** Your attendance and participation are important and required to do well in this course. Students are expected to come to class and be well prepared to engage in scholarly discussion on the day's scheduled subject matter. A student will not be able to do well in the class without prompt and regular attendance. Class attendance and participation are expected. Arriving late or leaving early is considered an absence. If you are absent on the day an assignment is due, you are still expected to submit the assignment on time (e.g., via email or through another student). Points will be deducted from the final grade due to absences. Students will not be penalized for religious holidays (see policy below). Absences will be treated as follows:
 1-2 Absences = No Point Loss
 3 Absences = 10% Points Deduction* **Must schedule conference after 3rd absence**
 4 Absences = 15% Points Deduction
 5 Absences = 20% Points Deduction
- **Make/Up exam.** There will be NO make/up activities or exams for this course unless absence is due to an emergency. Students are expected to submit relevant documentation (e.g., doctor's note, funeral notice, tow-truck receipt, etc.) when requesting a make/up activity.
- **Written Assignments.** Written assignments MUST be typed using **double spaced lines and have page numbers**. In addition, work submitted should reflect a professional quality in terms of scope, depth, writing mechanics, and appearance that would be expected of students at a prestigious university. Proofread all assignments as only materials with minimal or no errors will receive high scores. **Type assignments in an easily-readable 12 point (e.g. Times New Roman, Helvetica, Tahoma).**

Late Assignments (turning in after due date) Assignments are due before the class. **Assignments that are one day late will be lowered by 20%. Papers that are two days late will be lowered by 50%. No assignments will be accepted after 48 hours unless arrangements have been made with the**

instructor.

- **Academic Dishonesty.** To be successful in this class, you must invest time for study. Honesty is expected. Academic dishonesty (cheating, plagiarism, collusion) will NOT be tolerated and will result in a grade of zero (0) for the assignment. A second infraction will result in automatic failure of the class. Dishonesty is defined as (i) the use of unauthorized materials, (ii) any communication with peers during quizzes, (iii) representing another's work as one's own (i.e. plagiarism) or (iv) fabricating information. The professor reserves the right to determine occurrences of cheating. Additional information on Academic Dishonesty is found in the Selected University Policies section of this syllabi.
- **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.
- **Cell Phone / Pager / PDA / Blackberry usage:** Cell phones, pagers, etc., are not to be used during class. Turn such devices off or on vibrate and do NOT access them during class. The use of cell phone or other electronic communication devices during exams is prohibited. **Text messaging should be done before or after class!**

Children in Class: For those of you with children at home, please rest assured that our class sessions are friendly to children. As a parent, I completely empathize with the challenges associated with balancing your professional and personal lives. Please feel free to bring your children to class if you are having a childcare issue. In those instances, be sure to sit closer to the door so that you can slip in and out the classroom if needed without disrupting the rest of the class.

UNIVERSITY POLICIES

Withdrawing from Class

Students may [withdraw](#) (drop) from this course using the [Withdrawal Portal](#). Withdrawing (dropping) this course can impact your Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please speak with your instructors, consider your options, speak with your advisor, and visit the One-Stop Service Center (STE 230) or email enroll@uttyler.edu to get a complete review of your student account and the possible impacts to withdrawing. We want you to make an informed decision. UT Tyler faculty and staff are here for you and often can provide additional support options or assistance. Make sure to carefully [read the implications for withdrawing from a course and the instructions](#) on using the [Withdrawal portal](#).

Texas law prohibits students from dropping more than six courses during their entire undergraduate career*. The six courses dropped includes those from other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and Enrollment Services for additional guidance. **CAUTION #1:** Withdrawing before census day does not mean you get a full refund. Please see the [Tuition and Fee Refund Schedule](#). **CAUTION #2:** All international students must check with the [Office of International Programs](#) before withdrawing. All international students are required to enroll full-time for fall and spring terms. **CAUTION #3:** All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. **CAUTION #4:** All veterans or military-affiliated students should consult with the [Military and Veterans Success Center](#).

* Students who began college for the first time before 2007 are exempt from this law.

Artificial Intelligence Statement

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, **AI is not permitted in this course at all**. I expect all work students submit for this course to be their own. I have carefully designed all assignments and class activities to support your learning. Doing your own work, without human or artificial intelligence assistance, is best for your efforts in mastering course learning objectives. For this course, I expressly forbid using ChatGPT or any other artificial intelligence (AI) tools for any stages of the work process, including brainstorming. Deviations from these guidelines will be considered a violation of UT Tyler's Honor Code and academic honesty values.

Final Exam Policy

Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the Dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members must maintain student final examination papers for a minimum of three months following the examination date.

Incomplete Grade Policy

If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in place of a grade *only when **all of the following conditions are met***: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

Grade Appeal Policy

Disputes regarding grades must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. A grade appeal should be used when the student thinks the final course grade awarded does not reflect the grades earned on assessments or follow the grading scale as documented in the syllabus. The student should provide the rationale for the grade appeal and attach supporting document about the grades earned. The form should be sent via email to the

faculty member who assigned the grade. The faculty member reviews the rationale and supporting documentation and completes the instruction section of the form. The instructor should return the form to the student, even if a grade change is made at this level. If the student is not satisfied with the decision, the student may appeal in writing to the Chairperson of the department from which the grade was issued. In situations where there is an allegation of capricious grading, discrimination, or unlawful actions, appeals may go beyond the Chairperson to the Dean or the Dean's designee of the college from which the grade was issued, with that decision being final. The Grade Appeal form is found in the [Registrar's Form Library](#).

NOTE: The Grade Appeal Form is different from the Application for Appeal form submitted to the Student Appeals Committee, which does not rule on grade disputes as described in this policy.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler/> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <https://www.uttyler.edu/disability-services>, the SAR office located in the Robert Muntz Library, LIB 460, email saroffice@uttyler.edu, or call 903.566.7079."

Military Affiliated Students

UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#) has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

Students on an F-1 Visa

To remain in compliance with Federal Regulations requirements you must do the following:

- Traditional face-to-face classes: Attend classes on the regular meeting days/times.
- Hybrid Classes: Attend all face-to-face classes convened by the instructor according to the schedule set for your specific course.
- Online course: Only one online course can count toward your full-time enrollment. Students are expected to be fully engaged and meet all requirements for the online course.

Academic Honesty and Academic Misconduct

The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the [Student Conduct and Discipline policy](#) in the Student Manual Of Operating Procedures (Section 8).

FERPA

UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3](#). The course instructor will follow all requirements to protect your confidential information.

Absence for Official University Events or Activities

This course follows the practices related to [Excused Absences for University Events or Activities](#) as noted in the Catalog.

Absence for Religious Holidays

This course follows the practices related to [Excused Absences for Religious Holy Days as noted in the Catalog](#).

Absence for Pregnant Students

This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison. NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at parents@uttyler.edu and also complete the [Pregnant and Parenting Self-Reporting Form](#).

Campus Carry

We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

UT Tyler Resources for Students:

- [UT Tyler Student Accessibility and Resource \(SAR\) Office](#) (provides needed accommodations to students with document needs related to access and learning)
- [UT Tyler Writing Center](#)
- [The Mathematics Learning Center](#)
- [UT Tyler PASS Tutoring Center](#)
- [UT Tyler Supplemental Instruction](#)
- [Upswing \(24/7 online tutoring\)](#) - covers nearly all undergraduate course areas
- [Robert Muntz Library](#) and [Library Liaison](#)
- [Canvas 101](#) (learn to use Canvas, proctoring, Unicheck, and other software)
- LIB 422 -- Computer Lab where students can take a proctored exam
- [The Career Success Center](#)
- [UT Tyler Testing Center](#)
- [Office of Research & Scholarship Design and Data Analysis Lab](#)
- [UT Tyler Counseling Center](#) (available to all students)
- [MySSP App](#) (24/7 access to Student Support Program counseling through phone or chat and online wellness resources available in a variety of languages)
- [Student Assistance and Advocacy Center](#)
- [Military and Veterans Success Center](#) (supports for our military-affiliated students)

- [UT Tyler Patriot Food Pantry](#)
- [UT Tyler Financial Aid and Scholarships](#)
- [UT Tyler Student Business Services](#) (pay or set up payment plans, etc.)
- [UT Tyler Registrar's Office](#)
- [Office of International Programs](#)
- [Title IX Reporting](#)
- [Patriots Engage](#) (available to all students. Get engaged at UT Tyler.)

College of Education and Psychology (CEP) Vision and Mission

Core Purpose of the College of Education and Psychology

To prepare competent, caring, and qualified professionals in the field of education, psychology, and counseling; to foster discovery; and to advance the knowledge base in our respective disciplines.

Vision: The CEP will be a global leader in responding to needs in the fields of education, psychology, and counseling, with a focus on the East Texas region, by creating innovative academic and scholarly pathways and partnerships.

Mission: The mission of the CEP is to prepare competent and passionate professionals in the fields of education, psychology, and counseling; to advance knowledge and expertise; and to impact these fields locally, regionally, nationally, and internationally.

UT TYLER'S SCHOOL OF EDUCATION STANDARDS FOR EDUCATOR PREPARATION PROGRAMS

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 [here](#).

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

Tentative Course Outline: (The instructor reserves the right to adapt this outline as needed during the semester.)

Week	Dates	Topic	Assignment Due
1	August 25-31	Introductions/Syllabus Standards Teaching Mathematics in the 21st century To Know and Do Mathematics Problem Solving	Read Ch. 1 & 2
	September 1	Labor Day Holiday-No Class	
2	September 2-7	Teaching through Problem Solving Planning	Read Ch. 3 & 4 Online Discussion Board Math, Me, and My Philosophy Paper
3	September 8-14	Assessment Teaching All Students	Read Ch. 5 & 6 Online Discussion Board
4	September 15-21	Number Sense	Read Ch. 7 Online Discussion Board

5	September 22-28	Developing Meanings for the Operations	Read Ch. 8 Material Demonstration Paper and Presentation
6	September 29-October 5	Place Value	Read Ch. 10 Online Discussion Board
7	October 6-12		Midterm Exam
8	October 13-19	Developing Strategies for Addition and Subtraction, Multiplication and Division Computation	Read Ch. 11 & 12 Children's Literature Lesson Plan & Presentation
9	October 20-26	Algebraic Thinking	Read Ch. 13 Online Discussion Board
10	October 27-November 2	Fraction Concepts	Read Ch. 14 Online Discussion Board
11	November 3-9	Fraction Computation	Read Ch. 15 Online Discussion Board Inquiry Lesson Plan
12	November 10-16	Decimals & Percents Ratios and Proportional Reasoning	Read Ch. 16 & 17 Revised Inquiry Lesson Plan Peer Teaching Lesson
13	November 17-23	Measurement Geometric Thinking	Read Ch. 18 & 19 Online Discussion Board
	November 24-28	Thanksgiving Holidays-No Class	
14	December 1-7	Data Analysis	Read Ch. 20 Online Discussion Board
15	December 8-12		Final Exam
	December 13	End of Fall Term	