

## Syllabus

### ELED 4313: Teaching Mathematics in the Elementary School

Spring 2020      Wednesdays from 11:00-2:45      BEP 218

#### INSTRUCTOR INFORMATION

Professor of Mathematics Education, Dr. John Lamb Ph.D, BEP 248, UT Tyler School of Education,  
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Best way to contact is through email then by phone. Responses are usually within 24 hours during weekdays and by the next weekday on weekend correspondence.

**OFFICE HOURS:** Mondays 1:00-2:00, Tuesdays 1:00-2:00, and Wednesdays 10:00-11:00 or by appointment

**Last Day to Withdraw from Courses:** March 30, 2020

#### COURSE FORMAT AND DESCRIPTION

Scope and sequence of the elementary mathematics curriculum, materials, and selected instructional techniques.

Prerequisites: MATH 1350, MATH 1351, EDUC 3310 and EPSY 3330, admission to Educator Preparation Program. Field Based

#### COURSE LEARNING OBJECTIVES

##### Assessment and Standards Matrix:

Course Topics and/or Student Learning Outcomes  The student is expected to...	Activities	Assessment (including performance-based)	Standards Alignment
identify and discuss methods of teaching mathematics in the Elementary Classroom.	Small group discussions and Activities  Lesson Plan Writing  Chapter Readings	Completed lesson Plans  FlipGrid Videos  Quizzes/Midterm  MidTerm and Final Exams  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
read, research, and reflect on current topics in mathematics education related to content standards and topics of standards (TEKS, CCRS, ELPS, etc), assessment, diversity, and lesson preparation.	Lesson Plan Writing  TEKS Vertical Alignment Tasks  Chapter Readings	Completed Lesson Plans  TEKS Vertical Alignment Tasks  FlipGrid Videos  MidTerm and Final Exams	Texas Educator Standards: 1ai, 1aii, 1aiii, 1bi, 1bii, and 1cii; 2ai, 2bi, 2bii, 2biii, and 2ciii; 3ai, 3aii, 3aiii, 3bi, 3bii, 3biii, 3ci, 3cii, and 3ciii; 5ai, 6ai INTASC Standards: 1, 2, 4, 5, 7, and 8 TEKS: 111.1 – 111.26 CCRS: I-IV, VI, and VIII-X ELPS: Cross-Curricular Second Language Acquisition 1-5
demonstrate competence in measurement, proportional reasoning, and communication of results through interdisciplinary project-based learning.	Group Project  Small group discussions and Activities	Group Projects	Texas Educator Standards: 1biii, 1di, 1diii, 1ei, 1eii, and 1eiii; 6ai, and 6aii  INTASC Standards: 4, 5, and 8
discuss and demonstrate effective use and content knowledge related manipulative use in the teaching of mathematics at the elementary school level	Small group discussions and Activities  Online Video Reviews	Oral Exam  FlipGrid Videos  MidTerm and Final Exams	Texas Educator Standards: 1biii, 3ai, 3aii, 3aiii, 3bi, 3bii, 3biii, 3ci, 3cii, and 3ciii  INTASC Standards: 4, 5, and 8

## COURSE TEXTBOOK

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

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

## COURSE EVALUATION AND REQUIREMENT DESCRIPTION

### 1. Textbook Readings

**20% of Final Average**

--Students are expected to read required textbook chapters and complete online chapter quizzes.

### 2. Lesson Planning and Reflection Assignments

**20% of Final Average**

-- Each student will complete four Lesson Plan and Reflection assignments connected to chapter readings, web research, classroom observations, field requirements, Vertical TEKS alignments, and created digital resources.

### 3. 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.

### 4. Manipulatives Exam

**20% of Final Average**

-- Prior to Finals Week, students will complete a 30-minute individual exam with the professor related to their knowledge of teaching mathematics with manipulatives.

### 5. Project

**15% of Final Average**

--Each Student Group will complete 1 interdisciplinary projects that utilize STEM topics.

### 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.

**Topical Outline:** (Topics and Assignment dates will be available through the Canvas course that will launch the first day of classes)

## Optional Text and Materials

Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2010). *Elementary and middle school mathematics: Teaching developmentally* (7<sup>th</sup> Ed.). Boston: Pearson Education, Inc. (ISBN-13# 978-0-13-702508-4)

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.

Philipp, R., & Cabral, C. P. (2005). *IMAP: Integrating mathematics and pedagogy to illustrate children's reasoning*. San Diego State University Foundation.

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.

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

## Internet Resources

TEA <http://www.tea.state.tx.us/>

National Technology Standards <http://cnets.iste.org/index2.html>

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>

Database search for educational journals <http://library.uttyler.edu/>

Creative Publications [www.creativepublications.com](http://www.creativepublications.com)

EAI Education [www.eaieducation.com](http://www.eaieducation.com)

Texas instruments <http://education.ti.com/>

AIMS [www.AIMSedu.org](http://www.AIMSedu.org)

Eye on Education [www.eyeoneducation.com](http://www.eyeoneducation.com)

Casio <http://www.casio.com/education/>

NASCO [www.eNASCO.com](http://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 is 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 3<sup>rd</sup> 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 at the beginning of class. **Assignments that are one day late will be lowered 20%. Papers that are two days late will be lowered 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!**

## UNIVERSITY POLICIES

### UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

For a full list of university policies including information related to the topics listed below, click [here](#).

- Students Rights and Responsibilities
- Campus Carry
- Tobacco-Free University
- Grade Replacement/Forgiveness and Census Date Policies
- State-Mandated Course Drop Policy
- Disability Services

- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities
- Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct

#### **UT Tyler Resources for Students:**

- UT Tyler Writing Center (903.565.5995), [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu), <http://www.uttyler.edu/writingcenter/>
- UT Tyler Tutoring Center (903.565.5964), [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu), <https://www.uttyler.edu/tutoring/>
- The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254) <https://www.uttyler.edu/counseling/>

#### [University Guidelines, Links and Policies](#)

### **COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION**

**Vision:** The College of Education and Psychology is nationally recognized and respected for its academic programs and opportunities. It is a center of academic excellence, scholarly inquiry, and public service. The College prepares leaders to meet the critical challenges of the 21<sup>st</sup> Century through productive contributions to local and global communities and toward individual and cultural equity.

**Mission:** The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service. We affirm and promote global perspectives that value individual and cultural diversity to enhance learning, service, and scholarship.

### **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](#).