ELED 4313.002
Teaching Mathematics in the Elementary School
Thursday from 5pm to 6:20pm
Panola College in MONK 1302
Spring 2022

Instructor: Roberta Collinsworth
Office: MONK 1309 at Panola College
Phone: 903-693-2063 (leave a message)
Email: rcollinsworth@uttyler.edu
Office Hours: Thursday from 2pm to 5pm by appointment only

Course Overview:
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

Student Learning Outcomes:
The students will:
• Demonstrate an understanding of mathematical content from the elementary school grade levels. (3.A)
  - o Number concepts and operation
  - o Algebraic thinking
  - o Geometry
  - o Measurement
  - o 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 Outcomes	Activities	Assessment	Standards
Demonstrate an understanding of teaching mathematics in the elementary classroom	Small group activities Lesson planning	Lesson plan Three act problem Quiz/Tests	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
Demonstrate an understanding of mathematical	Class problem solving activities	Homework problems Class problem solving tasks	TEKS: Math process standards K-6

processes and reasoning		Learning Center assignment	INTASC: 4, 5 Texas Educator Standards: 3A, 3C CCRS: Math VII, IX
Solve mathematical problems and make connections within and outside of mathematics	Class problem solving activities	Homework problems Class problem solving tasks Cross Curricular Instruction Assignment	TEKS: Math K-6 INTASC: 4, 5 Texas Educator Standards: 3A, 3C CCRS: Mathematics X

Teaching Models and Strategies:
The following instructional models will be utilized in class:

- inquiry
- teacher-directed
- cooperative learning

The following constructivist teaching strategies will be incorporated in class:

- reflective thinking
- technology integration
- critical thinking
- problem solving
- communication
- manipulative-based
- patterns and relationships

Strategies will be presented that address the academic and linguistic needs of children.

Required Textbooks and Readings:
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

A student of this institution is not required under law to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Course Requirements/Policies:
Attendance, Participation, and Professionalism are prerequisites for success as a classroom teacher and crucial to being successful in this class.
1. Class Participation/Attendance: During our class, students will be required to participate in discussions, work collaboratively and cooperatively with classmates, participate in elementary math classroom lessons, and prepare elementary math classroom lessons. Attendance at all classes is an expectation of the course and a future professional skill. Each class represents an opportunity to learn.
2. Chapter Assignments: Weekly reflections, quizzes, and/or math problem work will be submitted prior to each class meeting over the textbook chapters.

3. Projects: The student will be expected to present each of the following projects during class. Each project must include activities for all students and the instructor, all materials needed for a successful lesson, an appropriate lesson plan, and a copy of the lesson for each student in the class.

Three Act Problem: The student will create a Three Act problem and video to share with classmates and students which includes an Inquiry Lesson Plan.

Learning Center: The student will create a Learning Center for their classmates and instructor and will include an appropriate lesson plan.

Cross Curricular Lesson: The student will create a lesson using a math based children's literature book which will include an appropriate lesson plan

4. Exams: There are two scheduled exams. All exams must be taken on the assigned dates unless arrangements are made prior to the exam. If there is a documented emergency, contact the instructor within 24 hours of the exam.

*All assignments are due on or before the dates provided in the Course Outline. Each assignment must be submitted in the Canvas assignment. No email attachments will be accepted. A penalty will be assessed for late work. Assignment dates may be moved to later (but not earlier) than the scheduled dates during the course of the semester. Any changes will be discussed with students in class.

Evaluation:

Class Participation	20%
Chapter Assignments	10%
Projects	40%
Exams	30%
TOTAL	100%

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

Last Day to Withdraw is March 28, 2022.

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, visit http://uttyler.edu

- 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, http://www.uttyler.edu/writingcenter/

• UT Tyler Tutoring Center (903.565.5964), 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) http://www.uttyler.edu/counseling/University Guidelines, Links and Policies

COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION

Vision: TheCollegeofEducationandPsychologyisnationallyrecognizedandrespectedforitsacademic 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 21st 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: TheSchool 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.

Course Outline:

WEEK/ MODULE	10% - CHAPTER ASSIGNMENTS TO BE DONE BEFORE ATTENDING CLASS ON THURSDAY	20% - CLASS PARTICIPATION AND ATTENDANCE FOR FACE-TO-FACE MEETINGS ON EACH THURSDAY	30% - EXAM ADMINISTRATION 40% - PROJECT PRESENTATION
Week 1 Module: 1-10-2022 through 1-16-2022	1. Scan through Chapter 2, 3, 4 of your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 1 Module.	1. Class Introduction 2. Discuss Chapter 2,3, 4	
Week 2 Module: 1-17-2022 through 1-23-2022	1. Read Chapter 6: Helping Children With Problem Solving in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 2 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 6 3. 3 Act Math Demonstration	
Week 3 Module: 1-24-2022 through 1-30-2022	1. Read Chapter 7: Developing Counting and Number Sense in Early Grades in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 3 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 7 3. Math Games	
Week 4 Module: 1-31-2022 through 2-6-2022	1. Read Chapter 8: Extending Number Sense: Place Value in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 4 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 8	3 Act Math Project Presentations in Class
Week 5 Module: 2-7-2022 through 2-13-2022	1. Read Chapter 9: Operations: Meaning and Basic Facts in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 5 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 9 3. Manipulatives	
Week 6 Module: 2-14-2022 through 2-20-2022	1.Read Chapter 10: Computation Methods and Chapter 11: Standard and Alternative Algorithms in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 6 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 10 3. Learning Center Demonstration	

Week 7 Module: 2-21-2022 through 2-27-2022	1. Read Chapter 12: Fractions and Decimals: Concepts and Operations in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 7 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 11 3. Math Outside of the Classroom	Exam over Week 1-7
Week 8 Module: 2-28-2022 through 3-6-2022	1. Read Chapter 13: Ratio, Proportions, and Precents: Meanings and Applications in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 8 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 13	Learning Center Project Presentations in Class
3-7-2022 through 3-13-2022	Spring Break—No Class	Spring Break—No Class	Spring Break—No Class
Week 9 Module: 3-14-2022 through 3-20-2022	1. Read Chapter 14: Algebraic Thinking in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 9 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 14 3. Authors of Children's Math Books and	
Week 10 Module: 3-21-2022 through 3-27-2022	1. Read Chapter 15: Geometry in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 10 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 15 3. Cross Curricular Lesson Demonstration	
Week 11 Module: 3-28-2022 through 4-3-2022	1. Read Chapter 16: Measurements in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 11 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 16 3. YouTube and other video resources	
Week 12 Module: 4-4-2022 through 4-10-2022	1. Read Chapter 17: Data Analysis, Statistics and Probability in your textbook, "Helping Children Learn Mathematics, 11th Edition". 2. Do assignments in Week 12 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 17	Cross Curricular Project Presentation in Class

Week 13 Module: 4-11-2022 through 4-17-2022	1. Read Chapter 18: Number Theory in your textbook, “Helping Children Learn Mathematics, 11th Edition”. 2. Do assignments in Week 13 Module.	1. Bell Ringer/Exit Tickets 2. Discuss Chapter 18 3. Desmos	
Week 14 Module: 4-18-2022 through 4-24-2022	1. Do assignments in Week 14 Module over technology use in the classroom.	1. Bell Ringer/Exit Tickets 2. Geogebra	
Week 15 Module: 4-25-2022 through 5-1-2022			Final Exam over Week 8-15 (administered in class).