



MTH 377 Math for Elementary Teachers II

Lezlie McElwee

UNITED TRIBES TECHNICAL COLLEGE

COURSE INFORMATION

This course utilizes a problem-solving approach with topics significant to grades 1-8 standards-based education. This course includes: properties of geometric shapes, measurement, triangle congruence and similarity, geometric constructions, Cartesian coordinates, symmetry, and selected topics from probability and statistics.

Credits: 3

Pre/Corequisites:

- Prerequisite: MTH 277

CLASS INFORMATION

Section Number: A

Term: Spring Year: 2023 Start Date: 1/10/2023 End Date: 5/5/2023

Meeting Times: Tuesday and Thursday 1:00-2:20 PM

Delivery Mode: Face to Face

INSTRUCTOR

Lezlie McElwee

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Office Phone: (701) 221-1752

Mobile Phone: (701) 400-6782

Office Location: Main Education Building 122

Office Hours:

MWF 10:00 - 11:00 AM, 2:00-3:00 PM, TTh 10:30 AM - 1:00 PM

TEXTBOOKS

Bassarear, T., & Moss, M., (2019). *Mathematics for Elementary School Teachers* (7th Edition). Boston, MA: Cengage

INSTITUTIONAL LEARNER OUTCOMES

Quantitative & Scientific Reasoning: Develop solutions to mathematical and scientific problems.

COURSE OBJECTIVES

1. Use mathematical knowledge to solve problems.
2. Participate in cooperative learning groups.
3. Develop a teacher perspective of math taught to elementary students.

4. Reflect in writing the connections made between the mathematical ideas and their own understanding.
5. Experience teaching a school-age group of children math skills.

A. GRADING SCALE

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

B. COMMUNICATION

Email is the official means of communication at UTTC. Information Technology (IT) will assign all students an official UTTC email address. All correspondence from the College to the student will be sent to the student's UTTC email address. Students are expected to check their email regularly and are responsible for all information sent to them via their UTTC email address. Faculty expect students to use their official email address for all instructional purposes, including communicating with the faculty.

C. ATTENDANCE

Students at UTTC are expected to participate in all of their class sessions and are expected to communicate with their instructors regarding any emergencies that cause them to miss class. Regardless of the circumstances, the student is responsible for obtaining any information missed because of the absence and completing any outstanding assignments. The student may refer to the course assignments in My.UTTC.edu, contact another student enrolled in the course, or meet with the course instructor during office hours to get the missing information. Attendance is entered as "Present", "Absent-Unexcused", or "Excused" (college-sanctioned absences).

D. LATE ASSIGNMENT SUBMISSIONS

UTTC supports and fosters the student's responsibility for completing and submitting assignments on or before scheduled due dates and times. If an assignment is due, the student should make every effort to submit the assignment on time. Occasionally, a student may experience an unexpected life event that results in the submission of late work. Communication is the key. Instructors are more than willing to work with students in the event of an emergency if the student communicates with them before the date and time the assignment is due to make other arrangements.

Late assignment deadlines will vary among departments but will not exceed more than five (5) business days after which the assignment was initially due. Assignment due dates, late assignment deadlines, and late assignment penalties are outlined in course syllabi. Assignments not submitted by the initial deadline date will be reflected in the course

gradebook as a zero (0) until the assignment has been submitted. The amount of points deducted for late work is at the discretion of the instructor. Assignments submitted via E-mail will not be accepted under any circumstances and will receive a grade of zero.

E. MISSED TEST, EXAMS AND QUIZZES (FORMAL ASSESSMENTS)

Students may not make up a missed test, exam or quiz without a valid reason for their absence (illness, family emergency). It is the student's responsibility to contact their instructors before the absence, or within 24 hours after missing the formal assessment. The instructor will review the reason the student missed and determine if the circumstance justifies the student being allowed to take the formal assessment. Approved make-up assessments must be taken outside of the student's regular class schedule and during a time and location agreed upon between the student and instructor. Students are not to miss another class in order to make-up an assessment for another course. If the student fails to show on the date and time of the makeup assessment, the student will not be permitted to reschedule the makeup and the assessment and will earn a 0% grade.

F. EARLY ALERT SYSTEM

UTTC's Early Alert System (EAS) is a proactive, communication driven support system that provides timely identification and interventions to work with individual students to assist in generating plans to overcome challenges to college success. The system assists UTTC students by linking them to faculty and staff who can provide and connect students to available resources and strategies. The early alert serves as an opportunity for students to take ownership of their success and empower them to accomplish academic and personal goals. The system helps faculty and academic advisors connect and communicate with students as issues arise. The additional cross-wide partnerships create a culture of collaboration focused upon the best interest of UTTC students.

Academic related concerns such as attendance, missing assignments, or classroom behavior will result in an early alert being issued by faculty. When an early alert is issued, the student will receive an email requesting them to make arrangement to follow up with the instructor and/or their academic advisor. Students receiving an early alert should make the necessary arrangements to set up and meet with faculty as soon as possible to generate a plan of success.

G. ACADEMIC HONESTY

Students are expected to complete their own work. Academic dishonesty includes plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using course materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to dishonestly obtain grades, honors, awards, or professional endorsement; altering, forging, misrepresenting, or misusing an academic record; or fabricating or falsifying data, research procedures, or data analysis. Refer to [Academic Affairs policies](#) and procedures handbook for further information.

H. STUDENTS WITH DISABILITIES

United Tribes Technical College recognizes its responsibility for making reasonable accommodations to ensure there is no discrimination on the basis of a disability. The Disabilities Services Office coordinates reasonable accommodations, support services, and appropriate referrals for the purpose of removing barriers and providing an equitable learning environment. If you have a disability, please contact the Disabilities Services (DS) office at (701) 221-1516 or email at dss@uttc.edu.

I. TITLE IX STATEMENT

Title IX is a federal civil rights law that prohibits discrimination on the basis of sex, including sexual harassment, rape and sexual assault. United Tribes Technical College is committed to upholding the law and standards that promote respect and human dignity in a safe environment. Sexual misconduct and relationship violence in any form violates UTTC's mission, cultural values, Student Code of Conduct, and may also violate federal and state law. If you or someone you know has been impacted by sexual assault, dating and domestic violence, stalking, or sexual exploitation, UTTC has resources available on the [Title IX website](#). you can find the appropriate resources on the UTTC campus and in the community

J. DIVERSITY AND EQUITY STATEMENT

United Tribes Technical College values diversity because it enriches the community and wealth of experiences that characterize a post-secondary education. Our students, faculty, and staff come from Tribal lands throughout the United States and Canada. The majority of our students come from the northern plains region of the country, with 70% representing the North Dakota tribes.

UTTC recognizes that diversity is about much more than race, ethnicity or geography. Because students from many Tribal nations are represented at UTTC, from a wide range of cultural and ethnic backgrounds, students are encouraged to share their own cultural practices, traditions, and beliefs in the classroom in an effort to build an inclusive and welcoming community for all individuals and one from which we can learn from one another. We believe engagement with diverse perspectives and ideas is critical to the education and growth of all people, and we value the unique experiences and viewpoints of all of our community members.

EQUITY STATEMENT

United Tribes Technical College (UTTC) believes that access to a high-quality education in an inclusive environment is the right of all individuals and imperative for the continued advancement of a strong democracy and workforce. Equity is ensuring that all students receive what they need to be successful through the intentional design of the college experience.

K. TECHNOLOGY REQUIREMENTS

To ensure that you are using the recommended personal computer configurations, please refer to the [minimal technology requirements](#).

SPRING SCHEDULE 2023

SPRING 2023

Week	Academic Topic Instructional Strategy	Support Materials, Book chapters, etc.	Assessment (Formative – Summative)
1 Jan. 10 - 13	Review Syllabus Math Review	Chapters 1-3	Chapter 1-3 Doodle Notes Reality Math Activity
2	*No School 1/16	Chapter 4.1	What do you

Jan. 16 - 20	MLK		think? Reflections
	Understanding Multiplication of Whole Numbers		Exercises 4.1
3 Jan. 23 - 27	Understanding Multiplication of Whole Numbers	Chapter 4.1 Chapter 4.2	Exercises 4.1 Exercises 4.2 What do you think? Reflections
	Understanding Division of Whole Numbers		
4 Jan. 30 – Feb. 3	Understanding Multiplication and Division of Fractions	Chapter 4.3	Exercises 4.3 Mango Math
5 Feb. 6 - 10	Understanding Multiplication and Division of Decimals and Integers	Chapter 4.4	Exercises 4.4 What do you think? Reflections
6 Feb. 13 - 17	Ratio and Proportion	Chapter 5.1	Exercises 5.1 What do you think? Reflections 7 th Generation Math
7 Feb. 20 - 24	*No School 2/20 President's Day	Chapter 5.2	Exercises 5.2
	Precents		What do you think? Reflections Short Lesson Plan
8 Feb. 27 – Mar 3	Understanding Patterns, Relations, and Functions	Chapter 6.1	Exercises 5.2 What do you think? Reflections
9 Mar 6 - 10	Midterm Grades Due 3/10	Chapter 6.2	Exercises 6.2
	Representing and Analyzing Mathematical Situations and		What do you think? Reflections

	Structures Using Algebraic Symbols		
Mar 13 - 17	Spring Break – No Classes		
10 Mar 20 - 24	Using Mathematical Models to Represent and Understand Quantitative Relationships	Chapter 6.3	Exercises 6.3 What do you think? Reflections 7th Generation Math Activities
11 Mar 27 - 31	Analyzing Change in Various Contexts	Chapter 6.4	Exercises 6.4 What do you think? Reflections Short Lesson Plan
12 Apr 3 - 7	*No School 4/7 Good Friday	Chapter 7.1	Exercises 7.1 What do you think? Reflections
	Collecting, Organizing, and Displaying Data		
13 Apr 10 - 14	Analyzing Data	Chapter 7.2	Exercises 7.2 What do you think? Reflections Mango Math
14 Apr 17 - 21	Using Data to Make Predictions	Chapter 7.3	Exercises 7.3 What do you think? Reflections
15 Apr 24 - 28	Understanding Probability	Chapter 7.4	Exercises 7.4 What do you think? Reflections Boom Learning
16 May 2 – 6	Finals Week	Chapter 8	Boom Learning Presentations
	Geometry		

GRADES DUE	Grades DUE May 8, 2023, by 5:00 pm		

Relationship between ND ESPB Elementary Education Standards, Outcomes and Assessments

Standards/Program Outcome	Assessment- Portfolio Artifact:
<p>INTASC Standard 4:</p> <p>Content Knowledge- The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.</p>	<ul style="list-style-type: none"> • Real Life Math Activity • Analyze Math Applications • Research and Peer Teach (7th Generation Math Activity) • Boom Learning Deck
<p>PROGRAM OUTCOME 6: Monitor learner progress by using multiple methods of assessment.</p> <p>6.1 Differentiate between formative and summative assessments.</p> <p>6.2 Demonstrate how to design, adapt, or select appropriate assessment.</p> <p>6.3 Analyze assessment data to understand patterns and gaps in learning.</p> <p>6.4 Evaluate and report learner progress against academic content standards.</p> <p>6.5 Explore accommodations and modifications in assessments.</p>	

United Tribes
Technical
College
Teacher
Education
Conceptual
Framework



The Teacher Education unit seeks to improve the quality of education in America by producing reflective professional educators who have demonstrated competency in the knowledge, skills and dispositions necessary for effective teaching through a coherent program of study. Using the INTASC (Interstate New Teacher Assessment and Support

Consortium) standards, as well as the philosophy of the department's conceptual framework, Teacher Education has established candidate outcomes that are assessed throughout the Teacher Education program(s) The Teacher Education program is based on shared core beliefs that incorporate the 4Rs - Relatedness, Relevance, Respect, and Responsibility.

Relatedness is evidenced by believing and behaving as if you are a relative to another person or thing. It is demonstrated and reinforced through collaborations with children and families.

Relevance is meaningful and authentic learning experiences tied directly to state and national standards. Candidates learn and experience reflective practice through hands-on practicums in the classroom under mentor and instructor guidance. They are provided the opportunity to study concepts that are meaningful and relevant to one's life and interests.

Respect is an important traditional Native value. Respect is demonstrated through candidate contributions and their respect of others' contributions. The disposition of respect is demonstrated through courtesy, kindness, and acceptance of individuals and their contributions.

Responsibility is a core value of Native cultures as well as the culture of teaching. Candidates are expected to demonstrate accountability for their actions and decisions as they engage in their general education and teacher education curriculum.

FACE-TO-FACE

PARTICIPATION / CLASS ENGAGEMENT

UTTC prepares students for the workforce by having high expectations for skills demonstrated in the classroom that transfer into future employment. This includes students' ability to be on time for class, to refrain from external distractions (such as cell phone usage or holding side conversations with other students), by providing positive contributions to class discussions, participating in individual or group activities, and being prepared for class.

CELL PHONES and LAPTOPS

Cell phones are turned off during class times out of respect for the other students and the instructor. If a student is expecting an important phone call (e.g. case worker, Housing, clinic), the instructor must be informed ahead of time and the cell phone set to a silent ring. If the call is received during class time, the student will answer the call and quietly step out of the classroom. Students may not use class time to check social media accounts, voicemail, text messages and/or personal emails.

STUDENT BEHAVIOR

UTTC students will conduct themselves in a responsible and respectful manner at all times in the classroom, in the hallways, in the Library, the Cafeteria, and any other location on campus. Student behavior that interferes with learning in the classroom will not be tolerated. This behavior includes chronic tardiness, threatening confrontations, intoxication, inappropriate physical contact, lewd or disrespectful language or gestures directed at the instructor or at fellow students, bullying, direct or indirect intimidation, and conversations with other students that are not related to classroom topics. Faculty are expected to maintain professional management of classroom activities prior to, during and after class times. As such, if a student demonstrates behavior that disrupts or interferes with classroom activities, an instructor reserves the right to ask the student to leave the classroom, to contact campus security, to request mediation by the academic department chair or an academic/personal counselor, or to file a formal complaint subject to a student disciplinary hearing.

BASIC NEEDS

Any student who faces challenges such as having enough food to eat or adequate housing and believes this may affect their attendance or performance in their courses is urged to contact the Wellness counselors for support. You can also notify your instructor for this course if you are comfortable doing so. Your instructor may be aware of additional resources that are available for you.