



UNITED TRIBES®  
TECHNICAL COLLEGE

# MTH 377 Math for Elementary Teachers II

Lezlie McElwee

UNITED TRIBES TECHNICAL COLLEGE

## COURSE INFORMATION

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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.

Pre-requisite MTH 277

Credits: 3

## CLASS INFORMATION

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Section Number: A

Term: Spring Year: 2020 Start Date: 1/13/2020 End Date: 5/8/2020

Meeting Times: Monday, Wednesday, Friday 1:00 - 1:50 PM

Meeting Location: Science and Technology Center Room 233

Delivery Mode: Face to Face

## INSTRUCTOR

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Lezlie McElwee

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Office Location: Science and Technology Center 142

Office Hours: Monday and Friday 11:00 AM -12:00 PM Tuesday and Thursday 1:00 - 3:00 PM

## TEXTBOOKS

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Beckmann, S. (2017) *Mathematics for Elementary Teachers with Activities* (5th ed.) Pearson.

## ND ESPB ELEMENTARY EDUCATION INTASC EXTERNAL STANDARDS

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### Standard #4: 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 these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

## COURSE OBJECTIVES

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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

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

## B. COMMUNICATION

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All students are required to regularly check their MyUTTC account to obtain information on course assignments, detailed instructions, and announcements. Students are expected to check their student account regularly for any updates or coursework changes. It is important to provide the instructor and/or academic advisor with your current email address, phone numbers and alternate contact information. Class cancellations, emergency information, or other announcements can be conveyed in a timely manner if we have your current contact information.

## C. ATTENDANCE POLICY

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Class attendance is very important for academic success of all students enrolled at UTTC. Instructors are required to report student attendance into UTTC's Jenzabar data management system on a daily basis during census period (the first two weeks of fall and spring semesters, and the first week of summer semester) and throughout the academic semester. Students can track and monitor their own attendance, per class, on the Learning Management System (LMS) found at [my.uttc.edu](http://my.uttc.edu).

UTTC recognizes particular circumstances may arise that affect the student's ability to attend class; therefore, it is important students communicate with their instructors regarding any emergencies that cause them to miss class (i.e. medical, family emergency). Regardless of the circumstances, the student is responsible for obtaining any information, such as assignments, handouts, and any course changes or announcements that he or she may have missed because of the absence. The student may refer to the course assignments in [my.uttc.edu](http://my.uttc.edu), contact another student enrolled in the course, or set up a meeting with the course instructor to get the missing information.

Attendance, completion of assigned readings and assignments, and engagement is the equivalent of participation since

the student's engagement with classmates contribute to everyone's understanding and achievement. Student grades will be impacted by the frequency and quality of participation in class.

Faculty members are required to report student non-attendance during the Census period at the start of each academic term in compliance with federal regulations pertaining to financial aid.

Instructors will initiate an academic attendance "Early Alert" using the Jenzabar retention tool using the Attendance Policy & Withdrawal guidelines found in the Academic Affairs section of the College Catalog.

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## **D. 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 (cell phone usage, holding side conversations with other students), by providing positive contributions to class discussions, participating in individual or group activities, and being prepared for class. Students will be assessed during the semester on the ability to demonstrate these skills.

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## **E. POLICY FOR LATE ASSIGNMENT SUBMISSION**

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.

**\*Teacher Education course assignments will receive half credit up to the five (5) business days which the assignment was initially due.**

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## **F. MISSED TESTS, 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.

**\*Presentations will follow the same policy.**

## **G. EARLY ALERT SYSTEM**

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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.

## **H. CELL PHONE**

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Out of respect for the other students and the instructor, it is advised that cell phones are turned off during class times. If the 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 such a phone call is received during class time, the student will answer the call by quietly removing him or herself from the classroom. This also includes texting during class; it is not acceptable. Students may not use class time to check social media accounts, voicemail, and/or personal emails.

## **I. STUDENT BEHAVIOR**

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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.

## **J. PLAGIARISM AND ACADEMIC INTEGRITY**

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Plagiarism is the term for taking credit for work that is not your own. This means you cannot take material from articles, books or websites you find in the library and present it as your own work; you cannot let your friends prepare your assignments for you; and you cannot copy an assignment from a student who took the same course in another semester. Plagiarism is taken seriously because this is a place for learning and new ideas; your assignments are evidence of your learning, your original ideas.

Providing work that is not your own, or that is not unique to the assignment, is inappropriate as a form of dishonesty. The consequences of plagiarism are serious: you will be given an F on the specific assignment, or the entire course, at the instructor's discretion. If you need advice on how to appropriately cite the work of others, please ask. As long as you acknowledge an idea is not your own, and provide the original source, it is generally not plagiarism.

Examples of violations of academic integrity are lying about the reason for an absence, or signing someone else's name to a sign-in sheet when they were not present. Please keep in mind that students generally ask their instructors for recommendations, whether for jobs or for scholarships.

## **K. STUDENTS WITH DISABILITIES**

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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) 255-3285, ext. 1516.

## **L. TITLE IX STATEMENT**

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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. Faculty members are considered "mandatory reporters" and are required to report incidents of sexual misconduct and relationship violence to the Title IX office on campus. If you or someone you know has been impacted by sexual assault, dating and domestic violence, stalking or sexual exploitation, you can find the appropriate resources on the UTTC campus and in the community. These resources include:

- UTTC Title IX Office: (701) 221.1591
- UTTC Campus Safety & Security: (701) 221.1700
- UTTC Academic & Personal Counseling: (701) 221. 1764
- UTTC Domestic Violence Advocate: (701) 221. 1764
- Abused Adult Resource Center Crisis Line: (866) 341.7009
- ND Helpline: 211

## INTASC Standards, Outcomes, and Course Assessments

| ND ESPB Elementary Education INTASC  | Portfolio Artifact         |
|--|----------------------------|
| <b>Standard #4: Content Knowledge</b><br>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 these aspects of the discipline accessible and meaningful for learners to assure mastery of the content. | Math Literature Activities |

## United Tribes Technical College Teacher Education Conceptual Framework

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|   | <p>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)</p> |
| <p>The Teacher Education program is based on shared core beliefs that incorporate the 4Rs - Relatedness, Relevance, Respect, and Responsibility.</p>   |  |
| <p><b>Relatedness</b> 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.</p>   |  |
| <p><b>Relevance</b> 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.</p> |  |
| <p><b>Respect</b> 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.</p>  |  |
| <p><b>Responsibility</b> 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.</p>  |  |

## SCHEDULE

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| Session | In Class Topic            | Assignment   |
|---------|---------------------------|--|
| Week 1  | Number Theory             | Chapter 8.1 to 8.4<br>Problems for Sections 8.1 - 8.4<br>Activity            |
| Week 2  | Number Theory             | Chapter 8.5 to 8.7<br>Problems for Sections 8.5 - 8.7<br>Peer Teach          |
| Week 3  | Algebra                   | Chapter 9.1 to 9.4<br>Problems for Sections 9.1 - 9.4<br>Activity            |
| Week 4  | Algebra                   | Chapter 9.5 to 9.8<br>Problems for Sections 9.5 - 9.8<br>Peer Teach          |
| Week 5  | Geometry                  | Chapter 10.1 to 10.3<br>Problems for Sections 10.1 - 10.3<br>Activity        |
| Week 6  | Geometry                  | Chapter 10.4 to 10.5<br>Problems for Sections 10.4 - 10.5<br>Peer Teach      |
| Week 7  | Measurement               | Chapter 11.1 to 11.2<br>Problems for Sections 11.1 - 11.2<br>Activity        |
| Week 8  | Area of Shapes<br>MIDTERM | Chapter 12.1 to 12.4<br>Problems for Sections 12.1 - 12.4<br>KNOWLEDGE CHECK |

| Session | In Class Topic                                 | Assignment  |
|---------|--|---|
| Week 9  | SPRING BREAK                                   |   |
| Week 10 | Area of Shapes                                 | Chapter 12.5 to 12.9<br>Problems for Sections 12.5 - 12.9<br>Peer Teach       |
| Week 11 | Solid Shapes and Their Volume and Surface Area | Chapter 13.1 to 13.4<br>Problems for Sections 13.1 - 13.4                     |
| Week 12 | Geometry of Motion and Change                  | Chapter 14.1 to 14.3<br>Problems for Sections 14.1 - 14.3<br>Activity         |
| Week 13 | Geometry of Motion and Change                  | Chapter 14.4 to 14.6<br>Problems for Sections 14.4 - 14.6<br>Peer Teach       |
| Week 14 | Statistics                                     | Chapter 15.1 to 15.2<br>Problems for Sections 15.1 - 15.2                     |
| Week 15 | Statistics<br><br>Probability                  | Chapter 15.3 to 15.4<br>Problems for Sections 15.3 - 15.4<br><br>Chapter 16.1 |
| Week 16 | Probability                                    | Chapter 16.2 to 16.3<br>Problems for Sections 16.2 - 16.3                     |
| Week 17 | FINALS   | KNOWLEDGE CHECK   |