MATH 277: Math for Elementary Teachers (27551)

Fall 2025 3 Credit Hours

Course and Instructor Information

Instructor Name: Taylor Simon

Contact Information:

Office: Classroom Building Room 107 (enter through room 108 lobby door)

Email: taylor.simon@mayvillestate.edu

Work phone: 701-788-4726

Hours of Availability:

Monday 8:00 - 9:50am, Wednesday 11:00 - 11:50am

Available for meetings on other days/times by appointment.

Instructional Mode: On-campus face-to-face

Course Dates: August 25 - December 19, 2025

Meeting Times and/or Location: Tuesday and Thursday, 8:00am – 9:15am. Education Building Room 122

Final Exam Time and Location: December 18th @ 8:00am. Education Building Room 122

Zoom Link: https://mayvillestate.zoom.us/j/84240177294?pwd=aQNageyzgtcMbBGc5QkbEwHk7LwnvE.1

Course Materials and Technologies

Required

MSU Technology Requirements

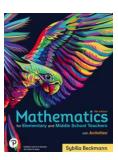
- MyLab for Mathematics for Elementary Teachers. Purchase necessary. Instructions to register are in Blackboard. Ebook included with MyLab.
- Computer with access to internet. Web sites may be used for learning purposes. Use of phones/computers during exams/quizzes will not be allowed.
- Calculator that performs basic operations.

Recommended

Mathematics for Elementary and Middle School Teachers with Activities 6th edition by Sybilla Beckmann

Use of Artificial Intelligence in this Course

Al tools may be used in this course if their purpose is to support your learning. The goal is always your own understanding, not just getting an answer. If you choose to use AI, treat its output as a starting point or building block—not a final product. Always aim to understand, question, and build upon what AI provides so that your own mathematical thinking and teaching skills continue to grow.



Course Description

A mathematics content course for prospective elementary school teachers. Topics include problem solving, numeration systems, number theory, geometry, probability, statistics, measurement & data, and algebra. Math manipulatives and technology are used in this course.

Pre-/Co-requisites: MATH 103, MATH 104, or equivalent. Education Majors pre-requisite is MATH 104.

Course Objectives

To successfully complete this course, the learner will be expected to meet the following objectives, as aligned to Early Childhood and Elementary Education Program Approval Standards through North Dakota's Education Standards and Practices Board (ND ESPB):

- 1. Use multiple representations and models (manipulatives, drawings, number lines, technology) to explore and explain mathematical concepts and procedures
- 2. Recognize the integral role of manipulatives and technology in the teaching of mathematics at the elementary school level
- 3. Cultivate critical thinking and problem-solving skills
- 4. Solve elementary mathematics problems multiple ways
- 5. Communicate mathematical reasoning through written, verbal, and visual explanations
- 6. Analyze and connect mathematical concepts across topics, showing how ideas build and relate to one another
- 7. Understand the content of elementary school mathematics relating to the following topics: numeration systems, real numbers, elementary number theory, numbers and operations, algebraic thinking, geometry and measurement, and data analysis and probability

Standards Alignment (Early Childhood and Elementary Education Program Approval Standards-ND ESPB):

- 1. Early Childhood ESPB Standards: 5a: Understand content knowledge—the central concepts, methods and tools of inquiry, and structure—and resources for the academic disciplines in an early childhood curriculum.
- 2. Elementary Education ESPB Standards: 50015.2c Major Math Concepts- Candidates demonstrate and apply understanding of major mathematics concepts, algorithms, procedures, application and mathematical practices in varied contexts, and connections within and among mathematical domains.

Course Expectations

Instructor/Student Communication

Students are accountable for all academic communications sent to their Mayville State University email address. You should check your university email at least once a day. You are also responsible for frequently logging into blackboard and attending office hours if needed.

Assignments and Assessments

MyLab: There will be a graded assignment on each chapter. These assignments can be found when you log in to the following site: https://mlm.pearson.com. There is a link to this site on Blackboard.

Other Assignments: Additional problems will be assigned to supplement the MyLab problems.

Quizzes: There will be weekly quizzes. The questions will be similar to the in-class activities, MyLab problems, and the problems at the end of each section in the book. You can use your notes on quizzes, so take meaningful notes!



Assessments: There will be two cumulative assessments, a midterm and a final. Tests are cumulative to promote long term learning. If the final is taken at a date/time other than what is scheduled, the grade earned will be dropped by one letter grade.

Midterm: October 16th, Final Exam: December 18th @ 8:00am.

Evaluation and Grading

Grading Policies

All late work will be worth 50% of the grade earned. If you are absent (unexcused) on the day of the midterm, 3 points will be deducted from grade. If the final is taken at a date/time other than what is scheduled, the grade earned will be dropped by one letter grade. You can expect work to be graded within a week of the due date.

Attendance/Participation Policies

Regular attendance and participation are expected. This includes asking and answering questions, working on inclass activities and assignments, etc. Read the book. Take meaningful notes. If illness or other circumstances prevent you from attending class, contact me **prior** to your absence. It is your responsibility to ask for work missed during an absence. You are responsible for completing all assigned work, regardless of attendance. Work is due on the due date even if you are absent. **If you miss class without notice, you have 2 weekdays to arrange make up activities, quizzes, or assessments. After that, missed work will receive a zero.**

Grading Scale

Α	85 – 100 %
В	70 – 84.9 %
С	50 – 69.9 %
D	35 – 49.9 %
F	0 – 34.9 %

Breakdown of Grades

Category	Percentage of Overall Grade
MyLab Assignments	10%
Other Assignments	25%
Quizzes	35%
Assessments	30%

All MyLab assignments will be worth 10 points. I will take your percentage earned on the assignment and make it a score out of 10.

Assessments are worth more points than quizzes. Total points for each assignment, quiz, and assessment will vary.

Course Timeline/Schedule

During this course, we will work to cover topics from chapters 1,2, 8, 4-6, 9, 15, 16, 12, 10, 11, 13, and 14 out of our text. Please refer to blackboard for assigned work and due dates.

Instructions for Scanning Work

When scanning your work, make sure that multiple pages are scanned into a single PDF document.

Option 1: Use a scanner. Email the scan to yourself. Download your scan. Submit your scanned document in Blackboard.

Option 2: Download the app "CamScanner" to scan your documents. After scanning all your pages in **one** document, select the document and select "share." Then choose "Share PDF." Share to your email. Open the email on your computer and download the PDF to your computer. Submit this **single PDF** in Blackboard. The app is free to use unless you decide to make in-app purchases.

Option 3: If you have an iPhone, iPad, or Android, you can use your device to scan documents! This is different from hitting the camera button and taking a picture.

iPhone/iPad Instructions

- a. Open a note or create a new note.
- b. Tap , then tap "Scan Documents."
- c. Place your document in view of the camera on your device.
- d. If your device is in Auto mode, your document will be automatically scanned. If you need to manually capture a scan, tap or one of the Volume buttons.
- e. Drag the corners to adjust the scan to fit the page, then tap "Keep Scan."
- f. You can add additional scans to the document or tap "Save" when you are done.
- g. Tap the arrow next to scanned documents for a drop-down menu. Scanned Documents 📎
- h. Select "Share" 🗋 and email the scan to yourself.
- i. Open the email on your computer and download the .pdf file. Submit to Blackboard.

Android Instructions

- a. Open Google Drive app 🛆.
- b. In the bottom right corner, tap "Add" + New ,
- c. Tap "Scan" or "Use Camera"
- d. Take a photo of the document you would like to scan.
 - i. Adjust scan area: Tap "Crop" .
 - ii. Take photo again: Tap "Re-scan current page" $\mathbb C$.
 - iii. Scan another page: Tap "Add" +.
- e. To save the finished document, tap "Done" 🗸
- f. Open the file in Google Drive and download it to your computer. Submit to Blackboard.

Enrollment Verification

The U.S. Department of Education requires instructors to conduct an activity which will validate student enrollment in this course. Class attendance will be used to verify enrollment in on-campus courses. If you do not attend, your enrollment in this course will be at risk.

Important Student Information

In the Announcements section of the Blackboard Institution Page, you can view and download the Important Student Information document for the current academic year. It includes information about:

- ✓ Land Acknowledgement Statement
- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ NetTutor Online Tutoring Program
- ✓ Starfish Student Success System
- ✓ Students with Documented Disabilities
- ✓ Student Learning Outcomes / Essential Learning Outcomes
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement (Title IX)

This syllabus serves as a general guide for the course. The contents are subject to change at the instructor's discretion. Students will be notified of any modifications through class announcements/email.