



DAKOTA COLLEGE COURSE SYLLABUS

Course Prefix/Number/Title: MATH 277 Math for Elementary Teachers I

Number of Credits: 3

Course Description: A course designed to provide elementary teachers/paraprofessionals with the ability to integrate the understanding of solutions of problems. Mathematical content includes algebra fundamentals, inductive and deductive reasoning, whole number operations, number bases, numeration systems, place value, number theory topics, sets, integers, decimals, percentages and fractions. Calculators, computers and manipulatives are used in the course.

Pre-/Co-requisites: MATH 103, MATH 104 or instructor approval.

Course Objectives:

1. Demonstrate an understanding of the mathematical concepts taught at the elementary level.
2. Communicate to others an understanding of elementary – level mathematics by writing reflections on methods of teaching and by explaining strategies and steps used in problem solving.
3. Use manipulatives and models to demonstrate and explain the mathematical processes used in problem solving.
4. Utilize many distinct problem-solving strategies.
5. Demonstrate an understanding of developmental processes in learning mathematics through the selection of age-appropriate strategies.

Instructor: Harmony Richman

Office: McFarland 427C (Valley City State University campus)

Office Hours: See instructor's calendar to set up an appointment

Phone: 701-200-3897 (Cell); 701-845-7198 (Office)

Email: Harmony.Richman@vcsu.edu

Lecture/Lab Schedule: Online

Textbook(s): None required – recommended Manes, M. (2017) [*Mathematics for Elementary Teachers*](#). CC BY-SA 4.0

Technology tools required: Internet access which is regular and dependable. Internet browser (Firefox or Google Chrome preference), Office 365, Adobe Acrobat Reading, Adobe Flash Player, ability to record audio and/or video, additional free web-based software.

Course Requirements:

Students who are in the college classroom either face-to-face or online have made the conscious choice to be a part of the course. In this course, you are viewed as a participant in the learning; hence there are expectations that come with the choice you made to take this course.

1. You are expected to put, at a minimum, approximately 4 – 7 hours of preparation and study time per week into this course outside of classroom time.
2. Actively participate regularly in class discussions through consistent, punctual, prepared and interested attendance.
3. Submit graded assignments by dates posted on the course calendar. On each assignment, you must show ALL YOUR WORK for full credit. If you do not show work, but simply state your answer, you will receive NO credit for the assignment. It is unfair to selectively grant extensions to some students and not others. Therefore, late assignments are not accepted. Addendums to this rule include medical and/or prior approval from the instructor. A zero will be given for any assignment not turned in by the deadline.
4. During the course of the semester, if you are experiencing any problems (family difficulties, sick relatives, etc.) that are affecting your academic performance, you must inform me of such problems ASAP if you want me to take them into consideration. The sooner I know about a problem, the more understanding I will be. If you come to me during the last week of the semester, before grades are about to be assigned to discuss difficulties which have affected you throughout the term, you will find that I am not nearly as understanding and that I can do very little to help you with your grade.
5. Submit assigned work as pdf or jpeg files.
6. Do ungraded, independent practice exercises.
7. Read assignments as provided by instructor.
8. Use manipulatives to show how to work through North Dakota State Math Content Standards in grades K – 5.
9. Complete graded assignments weekly as assigned by instructor.
10. This course is NOT a course on how to teach mathematics, but rather a course on developing a strong foundation on how to do the mathematics as students will encounter in grades K – 5. EDUC 315 Mathematics in Elementary School will focus on planning, implementing and evaluating lesson plans for mathematics.

Tentative Course Outline: See Table 1 Course Schedule below

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s):

North Dakota State Standards Mathematics: 50015.2c

Relationship to Campus Theme: This course is a core requirement of the paraeducation Program, a program that requires knowledge of human nature and learning, utilization of computer equipment and other media to create lessons and deliver instruction and understanding of the role of paraprofessionals in education.

Classroom Policies:

1. Our class “week” runs Saturday starting at 12:00AM through Friday at 11:59 PM.
2. Due dates for all assignments will be given throughout the duration of this course. Sufficient notice of due dates for assignments will be given, there is no reason why the assignments cannot be completed on time.

3. It is unfair to selectively grant extensions to some students and not others. Therefore, late assignments are not accepted. Addendums to this rule may include medical and/or prior approval from the instructor. A zero will be given for any assignment not turned in by the deadline.
4. If you are experiencing any problems (family difficulties, sick relatives, etc.) that are affecting your academic performance, you must inform me of such problems ASAP if you want me to take them into consideration. The sooner I know about a problem, the more understanding I will be. If you come to me during the last week of the semester, before grades are about to be assigned to discuss difficulties which have affected you throughout the term, you will find that I am not nearly as understanding and I can do very little to help you with your grade.
5. Your final grade is determined by dividing the total points earned by the total points possible. Points will be awarded for thoughtful posts of discussion boards, selected practice activities, reflections, and written reports. There will be no quizzes or tests within the course as there are formal and informal assessments within your assignments that fully allows me to analyze your understanding of our topics weekly.
6. Grades will be calculated using the following criteria:

A	93% - 100%
B	92% - 85%
C	84% - 77%
D	76% - 70%
F	≤ 69%

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services within the first two weeks of the semester to line up accommodations.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or

sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX Webpage.

Table 1 Course Schedule

The Topics are subject to change based on learners, weather, and other components that are unable to be identified before the semester begins.

Week/Module/Topics	Dates	Topics, Readings, Assignments, Due Dates, Deadlines
1 and 2		Course introduction Pre-Test Semester Project Introduction Grade K: Counting and Cardinality Grade K: Operations and Algebraic Thinking Choice Board 1
3 and 4		Grade K Number and Operations in Base 10 Grade K Measurement and Data Grade K Geometry Grade 1 Operations and Algebraic Thinking Grade 1 Number and Operations in Base 10 Choice Board 2
5 and 6		Grade 1 Measurement and Data Grade 1 Geometry Grade 2 Operations and Algebraic Thinking Grade 2 Number and Operations in Base 10 Choice Board 3
7 and 8		Grade 2 Measurement and Data Grade 2 Geometry Grade 3 Operations and Algebraic Thinking Grade 3 Number and Operations in Base 10 Khan Academy Grade 3 Proficiency Choice Board 4
9 and 10		Grade 3 Measurement and Data Grade 3 Geometry Grade 3 Number and Operations - Fractions Khan Academy Grade 3 Proficiency Choice Board 5
11 and 12		Grade 4 Operations and Algebraic Thinking Grade 4 Number and Operations in Base 10 Grade 4 Number and Operations Fractions Grade 8: Expressions and Equations Khan Academy Grade 4 Proficiency Choice Board 6

Week/Module/Topics	Dates	Topics, Readings, Assignments, Due Dates, Deadlines
13 and 14		Grade 4 Measurement and Data Grade 4 Geometry Khan Academy Grade 4 Proficiency Grade 5 Operations and Algebraic Thinking Grade 5 Numbers and Operations in Base 10 Khan Academy Grade 5 Proficiency Choice Board 7 Semester Project Due
15 and 16		Grade 5 Number and Operations Fractions Grade 5 Measurement and Data Grade 5 Geometry Khan Academy Grade 5 Proficiency Choice Board 8