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.

Prerequisites: MATH 103 or instructor approval.

Course Objectives: The student will be able to:
1. Understand the content of elementary school mathematics.
2. Work with problem solving and its applications.
3. Work with numeration systems and their applications.
4. Work with real numbers.
5. Work with elementary number theory.
6. Apply the use of calculators and manipulatives.

Instructor: Harmony Richman, M.Ed.

Office: McFarland 427C on the Valley City State University campus

Office Hours: Virtual office hours available via Blackboard Collaborative, Microsoft Teams, Zoom or Facetime (harmony.richman@vcsu.edu)

Phone: 701-200-3897 (cell - preferred)

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 or other shared files.
6. Do ungraded, independent practice exercises.
7. Read assignments as provided by the 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 the 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 mathematics as students will encounter in grades K – 5.

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 of total points earned over total points in the course:

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.

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	Topics, Readings, Assignments, Due Dates, Deadlines
1 and 2	Course introduction 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 Opearations 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
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