

Dakota College at Bottineau

Fall 2019

MATH 278 Mathematics for Elementary Teachers II (2 semester credits)

Course Description: This course is designed to broaden, strengthen, and apply geometry concepts in the elementary classroom. Mathematical content includes sets, functions, and reasoning; geometric figures; measurement; and motions in geometry.

Prerequisite(s): EDUC/MATH 277 Mathematics for Elementary Teachers I

Class Information:

Harmony Richman

- Email: harmony.richman@vcsu.edu
- Phone: 701-845-7198
- Cell: 701-200-3897
- Office Location: McFarland 427C
- Website: www.mrsrichmanmath.weebly.com
- Textbook: None Required- recommended "[Mathematics for Elementary Teachers](#)" by Michelle Manes is licensed under CC BY-SA 4.0
- Office Hours: There will be a minimum of 1 hour available for virtual office hours via Zoom conference with times varying from day and night hours to accommodate student schedules. These hours will be flexible and will vary from week to week.

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.

- You are expected to put, at a minimum, approximately 4 – 7 hours of preparation and study time per week into this course.
- Active participation by everyone is required. Participation occurs through consistent, punctual, prepared, and interested attendance at and involved in course meetings and activities. Students are expected to engage in critical dialogue about the topics and readings.
- 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. 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.
- Do ungraded, independent practice exercises.
- Assigned reading provided by instructor.
- Use manipulatives within class to show how to work through North Dakota State Math Content Standards in grades 6 – 8.

- This course is NOT a course on how to teach mathematics, but rather a course on making sure students know how to do the mathematics students would encounter in grades 6, 7 and 8. EDUC 315 Mathematics in the Elementary School will focus on planning, implementing and evaluating lesson plans for mathematics.
- 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.

Course Objectives/Student Outcomes: The students will be able to:

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

Instructor Responsibilities: Instructors have a commitment to the students they teach, much like a student has responsibilities. Students in this course should expect the instructor to:

- Provide accurate information to students on the concepts being taught.
- Create lessons that encourage experimental and constructivist learning principles.
- Provide constructive feedback on all products and drafts within a week of their submission, hopefully sooner.
- Help guide students through the course material and their endeavors to provide an effective learning experience.
- Whenever possible, I will respond to emails within 1-2 business days (M-F) and 48 hours during the weekend.

Relationship to Campus Theme: This course develops mathematical skills that are used to teach mathematical concepts to students in the elementary/middle school classroom with the use of technology.

Standards: Curriculum alignment with ND State Standards, InTASC Standards, VCSU Program for Learning Outcomes and the Teaching for Learning Capstone (TLC) Unit

North Dakota State Standard 50015.2d

Grading Criteria: 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.

Course Outline: Our class is designed such that you may work ahead in the course; however, there are due dates which will not allow you to fall behind. Our class “week” runs Saturday starting at 12:00AM through Friday at 11:59 PM. Late assignments will NOT be accepted.

Grades will be calculated using the following criteria:

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

Course Outline:

Schedule (subject to change):

Week	Topic
Weeks 1 & 2	Introductions Syllabus Grade 6: Ratios and Proportional Relationships Grade 6: The Number System
Week 3 & 4	Grade 6: Expressions and Equations Grade 6: Geometry
Week 5 & 6	Grade 6: Statistics and Probability Grade 7: Ratios and Proportional Relationships
Weeks 7 & 8	Grade 7: The Number System Grade 7: Expressions and Equations
Weeks 9 & 10	Grade 7: Geometry Grade 7: Statistics and Probability
Weeks 11 & 12	Grade 8: The Number System Grade 8: Expressions and Equations
Weeks 13 & 14	Grade 8: Functions Grade 8: Geometry
Weeks 15 & 16	Grade 8: Statistics and Probabilities

Academic Integrity: The academic community is operated on the basis of honesty, integrity and fair play. It is the expectation that all students, as members of the college community, adhere to the highest levels of academic integrity. This means that:

- Students are responsible for submitting their own work. Student work must not be plagiarized.

- Students must not work together on graded assignments without authorization from the instructor or get help from people, technological resources, textbooks, notes, etc. on examinations.

Violations of academic principles such as cheating, plagiarism or other academic improprieties will be handled using the guidelines outlined in the student handbook on pages 18, 19, and 37.

Disabilities and Special Needs: If you have a disability for which you need accommodation, contact the Learning Center to request disability support services: phone 701-228-5477 or toll-free 1-888-918-5623.