Please select your course and name from the drop-down menu. If your course or name are incorrect or missing, contact Sara Wade, the Instructional Services Administrative Assistant, 541-506-6037 or swade@cgcc.edu.

MTH 212- Foundations of Elementary Mathematics II- Annette Byers -Winter 2022

* Part B: Your Results DIRECTIONS 1. Report the outcome achievement data gathered via the assignments, tests, etc. you identified for each outcome (question 3) of your Part A. (Only include data for students who completed the course. Do not include students who withdrew or earned an incomplete) Data for all 3 outcomes should be reported below.

Outcome #1 - The Fraction Choice Board was successfully completed and shared with the class by all seven students. Each student choose their preferred method to demonstrate how to use fractions and decimals.

Outcome #2 - Eighty five percent of the students completed the writing their own story problems to demonstrate how to use real world scenarios to demonstrate fractions, decimals and percent.

Outcome#3 - The Reflective Writing Assignments were not successful. Seventy percent of the students finished these.

* Outcome #1

Extend mathematical content knowledge, including: operations involving fractions, decimals, ratio, proportion, percent, integers, and introductory statistics and probability.

* % of students who successfully achieved the outcome (C or above)

100

* Outcome #2

Apply various problem-solving strategies to create mathematical models that will help analyze real world scenarios which focus on fractions, decimals, percent, and statistics.

* % of students who successfully achieved the outcome (C or above)

85

* Outcome #3

Use the appropriate mathematical vocabulary necessary in the teaching of elementary math.

* % of students who successfully achieved the outcome (C or above)

* ANALYSIS 3. What contributed to student success and/or lack of success?

The small class size contributed to some of the disappointing success rates for the Reflective Writing assignments. Last year students were able to work with a partner to share ideas about the writing assignments. This year the students were reluctant to work in pairs or partner groups. Also, terrible internet at the CGCC dorm crippled my students' ability to use Zoom effectively.

* 4. Helping students to realistically self-assess and reflect on their understanding and progress encourages students to take responsibility for their own learning. Please compare your students' perception of their end-of-term understanding/mastery of the three outcomes (found in student evaluations) to your assessment (above) of student achievement of the three outcomes.

According the the student evaluations, they did improve their skills with regard to teaching elementary math, content knowledge and problem solving skills. The students have solid math skills. But the main skill that needs to be improved upon is teaching the material to appropriate age groups. Math knowledge will help the Math 212 students with part of their learning. The students will not be able to master the actual teaching until they have their own classrooms.

* 5. Did student achievement of outcomes meet your expectations for successfully teaching to each outcome (question 4 from Part A)

No

* 6. Based on your analysis in the questions above, what course adjustments are warranted (curricular, pedagogical, student instruction, etc.)?

Each student needs good internet connectivity to be able to participate in the course. I would also like to make adjustments to the assignments to allow students to work more easily with a partner and share their work with the group.

7. What resources would be required to implement your recommended course adjustments (materials, training, equipment, etc.)? What Budget implications result?

A set of math manipulatives will be required for the course sequence next year. I would like to make these available at no charge to the students starting Fall 2023.

* 8. Describe the results of any adjustments you made from the last assessment of this course (if applicable) and their effectiveness in student achievement of outcomes.

NA. However, I did make changes to both the Fraction Choice Board and the Reflective Writing assignments this year. I will continue to make adjustments to these assignments according to the dynamics of the group.

9. Describe how you explain information about course outcomes and their relevance to your students.

The students in the course are on the education pathway. I explain how outcomes for the course are part of the teaching process and the importance of aligning the curriculum with outcomes. We also look at the Common Core Math Standards for the state of Oregon and the local school district to see how assignments are created to reach the outcomes. Standardized testing will be part of their teaching careers. These tests may or not reflect learning and outcomes. The discussion of how will teachers know if students understand the material is a discussion daily in the course.

10. Please describe any changes/additions to instruction, curriculum or assessment that you made to support students in better achieving the CGCC Institutional Learning Outcomes: ILO #1: Communication. The areas that faculty are focusing on are: "Content Development"and/or Control of Syntax and Mechanics" and ILO #2: Critical Thinking/Problem Solving. The areas that faculty are focusing on are: "Evidence" (Critical Thinking) and/or "Identify Strategies" (Problem Solving). ILO #4: Cultural Awareness. The area that faculty is focusing on is: "Curiosity" - Encouraging our students to "Ask deeper questions about other cultures and seek out answers to these questions" ILO #5: Community and Environmental Responsibility. The area that faculty are focusing on are: "Applying Knowledge to Contemporary Contexts" and "Understanding Global Systems" ILO#3 - Quantitative Literacy - "Application/Analysis" and/or "Assumptions"

- 1. Small group discussions and presentations of math assignments in class. Continued focus on speaking using correct mathematical vocabulary.
- 2. Use of the question: What do you wonder about this? How can you find more information? Write your own problems to present to the class.
- 4. Accessing math history as a discussion point to focus on cultural awareness for many of the math assignments. Rewriting problems from the textbook so they are culturally relevant. Discuss why some topics would not make any sense to students.
- 5. Current math topics in the news. Weekly graphs with current topics.
- 6. The entire math class is laser focused on how to apply math to our everyday life and to destroy the assumption that math is difficult. Math is for all students.