## **Assessment: Course Four Column**



## Courses (MATH) - Math

## MATH 122:Num Concept for Elem Tchr

Course Outcomes	Assessment Measures	Results	Actions
Inductive and deductive reasoning to solve problems - Use inductive and deductive reasoning to solve problems. Perform basic calculations in a variety of number systems. Make correct use of set notation and operations. Explain a familiarity with other concepts, such as modular arithmetic and alternate techniques of calculating with the basic operations Course Outcome Status: Active Next Assessment: 2022-2023	Exam - Midterm Exam #1 Criterion: Scoring 70% or higher on exam. The exam was in-class exam and covered chapters 1-3 of textbook	Reporting Period: 2017-2018 Criterion Met: Yes The exam average was 81% with 91% (21/23) of the students scoring 70% of higher. 8 of them scored 90% or higher. (01/14/2019)	Action: No action plan needed. I will use the same methods of instruction However, some students had difficulty on items #8 and #11. Both items assessed understanding of solving three-set problems. Ten and thirteen students had item #8 and #13 wrong, respectively. Perhaps, I went through this material quicker than I wanted to. I will slow down and explain set notations and two- and three-set problems—practice with more examples in class. (01/14/2019)
Composite numbers from prime numbers - Develop composite numbers from prime numbers. Course Outcome Status: Active Next Assessment: 2022-2023	Exam - Midterm #2 exam Items #: 8, 11, 12 Criterion: Scoring 70% or higher on exam. The exam was a take-home exam and covered chapters 4-6 of textbook	Reporting Period: 2017-2018 Criterion Met: Yes Midterm #2—The average was 95% with 96% (22/23) of the students scoring 70% or higher. Twenty students scored 90% or higher. #8: 100% successful #11: 96% successful #12: 96% successful (01/14/2019)	Action: No action needed. I will keep using the same methods of instruction. (01/14/2019)
Applied problems using a verificity of			

Reporting Period: 2017-2018

Action: No action needed. I will

Course Outcomes	Assessment Measures	Results	Actions
techniques - Solve applied problems using a variety of techniques Course Outcome Status: Active Next Assessment: 2022-2023	Items: 5, 9, 10, 23 <b>Criterion:</b> Scoring 70% or higher on exam. The exam was a take-home exam and covered chapters 4 & 6 of textbook	Criterion Met: Yes Midterm #2—The average was 95% with 96% (22/23) of the students scoring 70% or higher. Twenty students scored 90% or higher. #5: 74% successful #9: 100% successful #10: 96% successful #23: 87% successful (01/14/2019)	keep using the same methods of instruction It seemed few students (6 of them) had difficulty in applying concept of dividing decimals. I will require students to practice more of this concept whereas the methods of instruction remain unchanged. (01/14/2019)
Development of the integers, rational numbers, and real numbers - Understand and explain clearly the development of the integers, rational numbers, and real numbers. Demonstrate a deeper understanding of basic mathematical operations and fundamental properties of real numbers Course Outcome Status: Active Next Assessment: 2022-2023	Exam - Final Exam Items Criterion: Scoring 70% or higher on exam. The final exam was an in-class exam and covered chapters 7 & 8 of textbook	Reporting Period: 2017-2018 Criterion Met: Yes The average was 85% with 82% (22/23) of the students scoring 70% or higher. Four out of 11 students scored 90% or higher (01/14/2019)	Action: No action needed. I will keep using the same methods of instruction I realized very few students had However, some students had difficulty on items #4 and #10. Item #4 asked students to determine whether a rational number can be written as a terminating decimal and explain why. Item #10 was on compound interest. assessed understanding of solving three-set problems. I

will do few more examples in class to demonstrate these concepts next time I teach this class.

**Follow-Up:** This was my second time of teaching this course. I will say I am more confident teaching this class. Students are getting used to my style of teaching now than when I started teaching at

GBC in spring of 2016.

What was done differently?

Since these class is delivered via IAV, my challenge has always

(01/14/2019)

## Actions

been to make the class a bit more hands on. It seems very difficult (if not almost impossible) for students to use manipulatives in class. I do demonstrate them in class, but it is not the same as doing it yourself. I will result to using online tools such as applets and allow using students to bring their laptops in class. (01/14/2019)