Assessment: Course Four Column

Courses (MATH) - Math

MATH 120:Fund of College Math

Course Outcomes	Assessment Measures	Results	Actions
Basic rules of probability - Solve problems using the basic rules of probability. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Exam -** Proctored assignment: Chapter 11 Exam Problem numbers: #3 83% #15 83% #23 17% The percentages following the problem numbers represent the percentage of students who answered the question correctly. **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** No Average percentage: 61% Results Analysis: Students had good understanding of sets, except for the more complicated problem involving surveys. Students had difficulty with conditional probability. The percentage is the average of the percentages in the previous column. (11/05/2019)	**Action:** Provide more examples, discussion on the survey problems and conditional probability. (11/05/2019)
Basic set theory - Solve problems using basic set theory. **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Exam -** Proctored assignment: Chapter 2 Exam Problem numbers: # 8 86% #10 43% #16 71% #17 23% **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** No Average Percentage: 55.75% (11/05/2019)	
Follow appropriate mathematical format - Follow appropriate mathematical format and use proper mathematical notation in solving	**Assignment - Written -** Proctored assignment: Chapters 2, 3, 9,11	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Average percentage: 73%	**Action:** In general, I will incorporate more discussion/examples with symbolic notation and working

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problems. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	Problem numbers: Ch. 2 # 6 86% Ch. 3 #4 100% Ch. 3 #14 14% Ch. 3 #15 71% Ch. 9 #1 67% Ch. 11 #9 100% **Criterion:** NA	Results Analysis: Students have difficulty with determining when statements are equivalent. (11/05/2019)	with symbols to determine if statements are equivalent. (11/05/2019)
Mathematical formulas to evaluate problems involving financial data - Use mathematical formulas to evaluate problems involving financial data. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Exam -** Proctored assignment: Chapter 8 Exam Problem numbers: #9 50% #10 17% #14 17% #19 50% **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** No Average percentage: 33.5% Results Analysis: Students have great difficulty using somewhat complicated financial formulas. Students have difficulty in converting units if there is more than one multiplication or more than one unit involved. Students have difficulty with symbolic logic, both in translating English statements into symbols and then utilizing the symbols to determine the validity of an argument. Students in this course are not meeting the Math Department's general education objective for applying relevant mathematical skills in solving real-world problems. At every instance, i.e., chapter 3, 10, 12 I need to incorporate more support material that emphasizes the importance of these skills and gives students the opportunity for more practice. Students had difficulty with calculating the standard deviation. They would divide by n instead of n-1, though they typically did other parts of the formula correctly. (11/05/2019)	**Action:** Include algebra remediation prior to and during the personal finance chapter. Incorporate more practice with dimensional analysis. Incorporate more practice on translating English statements to symbols. Also provide more examples and more opportunities for students to build arguments using symbolic notation. Build a better Chapter 10 Exam that includes trigonometric ratios. Include surface area on Chapter 10 Exam. (11/05/2019)
Dimensional analysis - Solve problems using dimensional analysis **Course Outcome Status:** Active	**Exam -** Proctored assignment: Chapter 9 Exam	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Average Percentage:	

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Next Assessment: 2023-2024	Problem numbers: #1 67% #2 67% #3 83% **Criterion:** NA	72.3% (11/05/2019)	
Identify and analyze statistical data - Identify and analyze statistical data. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Exam -** Proctored assignment: Chapter 12 Exam Problem numbers: #1 100% #3 100% #4 50% #5 100% #10 17% #14 83% **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Average percentage: 75% (11/05/2019)	
Formal and symbolic logic to analyze arguments and draw valid conclusions - Use formal and symbolic logic to analyze arguments and draw valid conclusions. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Exam -** Proctored assignment: Chapter 3 Exam Problem numbers: #11 29% #20 57% **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** No Average Percentage: 57.5% (11/05/2019)	
Trigonometry to solve problems involving right triangles - Use trigonometry to solve problems involving right triangles. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Exam -** Proctored assignment: Chapter 10 Exam Problem numbers: #7 80% No problems involving trigonometric ratios **Criterion:** NA	**Reporting Period:** 2018-2019 **Criterion Met:** No Invalid results since exam did not include trigonometric ration (11/05/2019)	
Calculate perimeter, area, surface area, and volume of various geometric objects - Calculate perimeter, area, surface area, and volume of various geometric objects. **Course Outcome Status:** Active	**Exam -** Proctored assignment: Chapter 10 Exam Problem numbers: #18 80%	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Average percentage: 80% (11/05/2019)	**Action:** This IAV class had lower averages than the online section I taught in the spring. This class was also smaller and therefore more affected by extreme values.

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Next Assessment: 2023-2024	#21 80% **Criterion:** NA		Students tended to have difficulties with the same material in both classes. I believe the Math Department will address the general education objectives on a department level. (11/05/2019)