**MATH 120 Fundamentals of College Mathematics**

**Section Number(s): 1001**

**Instructor: Daniel T. Murphree**

**Academic Year: 2019**

**Semester: Fall**

**# of Students: 28**

**Complete and submit your assessment report electronically to your department chair. Course and general education outcomes are counted as achieved if 62% or more of students answered the problems associated with the outcome correctly.** **As needed, please attach supporting documents and/or a narrative description of the assessment activities.**

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| **General Education Objectives** | **Class/Course Outcomes** | **Assessment Measures** | **Course Outcome Assessment Results** | **General Education Outcome Assessment Results** | **Outcome Results Analysis**  |
|  | In the boxes below, summarize the outcomes assessed in your class or course during the last year*.* If this is a GenEd class, include the appropriate GenEd objectives. | In the boxes below, list the proctored assignments and which problems on those assignments you used to assess each outcome. | In the boxes below, give the percentage of students who answered the problems correctly and indicate if the course outcome was achieved.  | In the boxes below, give the average of the percentages of students who met course learning outcomes and indicate if the general education outcome was achieved. | In the boxes below, please reflect on this outcome’s results and summarize how you plan to use the results to improve student learning. |
| Demonstrate knowledgeOf mathematical notation system | **Outcome #1:** Solve problems using the basic rules of probability.  | Proctored assignment: Proctored Final ExamProblem numbers:11.1.911.4.1111.7.55 | Results: 11.1.9: 54.16%11.4.11: 75%11.7.55: 45.83%Average: 58.33%Criterion Met: No | Average percentage: 56.79Criterion Met: No | 1. Results Analysis: This General Education objective was not achieved, and neither were either of the course learning outcomes. It is noteworthy that in the second semester of this year, the students did achieve CLO 2. In between the two semesters, I altered the schedule to give students more time with chapter 2. This was apparently helpful for the students. CLO 1 has similar achievement to the second semester.2. Action Plan: I gave the students more time with the chapter 2 material in the second semester and that seemed to help them with that CLO. I plan on making videos specific to topics in chapter 11 to supplement the videos I currently provide from the publisher of the textbook and recordings of my live courses. The live class videos are not condensed by topic but rather are in chronological order and I think it would encourage students to use my videos more if they were grouped by topic. |
| **Outcome #2:** Solve problems using basic set theory.  | Proctored assignment: Proctored Midterm ExamProblem numbers:2.4.552.3.932.3.72.3.27 | Results:2.4.55: 62.96%2.3.93: 51.85%2.3.7: 92.59%2.3.27: 14.81%Average: 55.55%Criterion Met: No |
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| Apply mathematical concepts and operations in proper written or graphical format | **Outcome #3:** Follow appropriate mathematical format and use proper mathematical notation in solving problems. | Proctored assignment: Proctored Midterm & Final ExamsProblem numbers:2.1.253.2.73.6.193.5.239.1.2111.2.68 | Results:2.1.25: 85.19%3.2.7: 77.78%3.6.19: 51.85%3.5.23: 66.67%9.1.21: 66.67%11.2.68: 25%Average: 69.06%Criterion Met: Yes | Average percentage: 69.06%Criterion Met: Yes | 1. Results Analysis: I am extremely happy with the outcomes here and do not see much that I need to change. The only particularly low score was on counting methods, which was one of the topics addressed above.2. Action Plan: As outlined above, I plan to make topic videos to help the students better understand how to do number theory and probability problems. |
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| Apply relevant mathematical skills in solving real-world problems **Continued:** Apply relevant mathematical skills in solving real-world problems | **Outcome #4:** Use mathematical formulas to evaluate problems involving financial data.  | Proctored assignment: Proctored Midterm ExamProblem numbers:8.3.38.4.78.5.298.6.1 | Results:8.3.3: 66.67%8.4.7: 37.04%8.5.29: 18.52%8.6.1: 37.04%Average: 39.82%Criterion Met: No | Average percentage: 60.17%Criterion Met: No | 1. Results Analysis: While the students did well with CLO’s 5, 6, and 8, they were low in all of the other CLO’s for this General Education outcome. CLO 5 was particularly higher than any of the others. Something of note in this outcome is that the problems in MyMathLab have the correct conversion factor with the problem which helps the student choose the correct formula to use and ensures that they student has the formula available provided they know the very basics of dimensional analysis.2. Action Plan: Currently I allow students to make their own formula/notes sheet for the exams. It might help students if instead I were to create formula sheets for them. That way, students would have the correct formula available for sure. I am a little unsure of this action plan because there are proven benefits to students in making their own note sheets so it might have a less helpful effect than I would like. |
| **Outcome #5:**Solve problems using dimensional analysis | Proctored assignment: Proctored Final ExamProblem numbers:9.1.99.1.23 | Results:9.1.9: 91.67%9.1.23: 79.17%Average: 85.42%Criterion Met: Yes |
| **Outcome #6:**Identify and analyze statistical data.  | Proctored assignment: Proctored Final ExamProblem numbers:12.1.5212.2.312.3.2312.4.37 | Results:12.1.52: 70.83%12.2.3: 91.67%12.3.23: 54.17%12.4.37: 70.83%Average: 71.88%Criterion Met: Yes |
| **Outcome #7:**Use formal and symbolic logic to analyze arguments and draw valid conclusions.  | Proctored assignment: Proctored Midterm ExamProblem numbers:3.3.273.7.11 | Results:3.3.27: 48.15%3.7.11: 62.96%Average: 55.56%Criterion Met: No |
| **Outcome #8:**Use trigonometry to solve problems involving right triangles.  | Proctored assignment: Proctored Final ExamProblem numbers:10.2.2310.6.3 | Results:10.2.23: 91.67%10.6.3: 50%Average: 70.84%Criterion Met: Yes |
| **Outcome #9:**Calculate perimeter, area, surface area, and volume of various geometric objects.  | Proctored assignment: Proctored Final ExamProblem numbers:10.4.1310.5.910.5.59 | Results:10.4.13: 66.67%10.5.9: 45.83%10.5.59: 16.67%Average: 43.06%Criterion Met: No |

**Notes: 27 students took the midterm exam, only 22 students took the final exam. A weighted average was used to find the average for the General Education learning outcomes.**

I have reviewed this report:

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Department Chair Dean

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Vice President of Academic Affairs and Student Services

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