

Assessment: Course Four Column

Courses (MATH) - Math

MATH 095 Owens:Elementary Algebra

| <i>Course Outcomes</i> | <i>Assessment Measures</i> | <i>Results</i> | <i>Actions</i> |
|---|---|---|----------------|
| <p>Identify, set up, and solve a variety of applied problems using algebraic techniques - Identify, set up, and solve a variety of applied problems using algebraic techniques</p> <p>Course Outcome Status: Active</p> <p>Next Assessment: 2021-2022</p> <p>Start Date: 10/25/2017</p> | <p>Exam - Midterm Exam</p> <p>#1 Distance applied problem</p> <p>Final Exam</p> <p>#15 Mixture applied problem</p> <p>#7 Problem modeled by quadratic</p> <p>Criterion: NA</p> | <p>Reporting Period: 2016-2017</p> <p>Criterion Met: N/A</p> <p>Midterm Exam</p> <p>#1 22% answered correctly</p> <p>Final Exam</p> <p>#15 17% answered correctly</p> <p>#7 39% answered correctly (02/09/2018)</p> | |
| <p>Add, subtract, multiply, divide, and factor polynomials - Add, subtract, multiply, divide, and factor polynomials</p> <p>Course Outcome Status: Active</p> <p>Next Assessment: 2021-2022</p> <p>Start Date: 10/25/2017</p> | <p>Exam - Final Exam</p> <p>#2 GCF followed by trinomial</p> <p>#3 Trinomial factoring</p> <p>#4 Perfect square trinomial</p> <p>#5 Sum/difference of cubes</p> <p>#10 Difference of squares</p> <p>#12 Synthetic division</p> <p>Criterion: NA</p> | <p>Reporting Period: 2016-2017</p> <p>Criterion Met: N/A</p> <p>Final Exam</p> <p>#2 50% answered correctly</p> <p>#3 72% answered correctly</p> <p>#4 50% answered correctly</p> <p>#5 33% answered correctly</p> <p>#10 72% answered correctly</p> <p>#12 17% answered correctly (02/09/2018)</p> | |
| <p>Graph and solve linear equations and inequalities - Graph and solve linear equations and inequalities</p> <p>Course Outcome Status: Active</p> <p>Next Assessment: 2021-2022</p> <p>Start Date: 10/25/2017</p> | <p>Exam - Midterm Exam</p> <p>#2 Linear inequality</p> <p>#3 Two points</p> <p>#4 Linear equation</p> <p>#7 System of equations substitution</p> <p>#8 System of equations addition</p> <p>Final Exam</p> | <p>Reporting Period: 2016-2017</p> <p>Criterion Met: N/A</p> <p>Midterm Exam</p> <p>#2 39% answered correctly</p> <p>#3 44% answered correctly</p> <p>#4 50% answered correctly</p> <p>#7 44% answered correctly</p> <p>#8 61% answered correctly</p> | |

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|---|--|--|---|-------|--------------------|------------|---|---|------|---|---|-------|---|---|-------|---|---|-------|---|---|-------|
| | #11 System of equations #13 Graph linear equation #14 linear inequality Criterion: NA | Final Exam #11 17% answered correctly #13 61% answered correctly #14 39% answered correctly (02/09/2018) | | | | | | | | | | | | | | | | | | | |
| Graph and solve quadratic equations by various methods, including by the quadratic formula - Graph and solve quadratic equations by various methods, including by the quadratic formula. Course Outcome Status: Active Next Assessment: 2021-2022 Start Date: 10/25/2017 | Exam - Final Exam #8 Solve quadratic using quadratic formula #9 Solve equations in quadratic form Criterion: NA | Reporting Period: 2016-2017 Criterion Met: N/A Final Exam #8 61% answered correctly #9 17% answered correctly (02/09/2018) | Action: Class Averages Midterm: 45.05% Final Exam average: 46.1% Grade Distribution: Total number of students 19 <table border="1"> <thead> <tr> <th>Grade</th> <th>Number of Students</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>A</td><td>1</td><td>5.2%</td></tr> <tr><td>B</td><td>7</td><td>36.8%</td></tr> <tr><td>C</td><td>4</td><td>21.1%</td></tr> <tr><td>D</td><td>2</td><td>10.5%</td></tr> <tr><td>F</td><td>5</td><td>26.3%</td></tr> </tbody> </table> Number of Students 1 7 4 2 5 Percentage 5.2% 36.8% 21.1% 10.5% 26.3% I also taught a full semester section of MATH 95 this semester. Here is the grade distribution for that course. Final Exam Average: 36.5% Grade Distribution: Total number of students: 24 Grade Number of Students | Grade | Number of Students | Percentage | A | 1 | 5.2% | B | 7 | 36.8% | C | 4 | 21.1% | D | 2 | 10.5% | F | 5 | 26.3% |
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| B | 7 | 36.8% | | | | | | | | | | | | | | | | | | | |
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| | | | Percentage A 1 4.1% B 5 20.8% C 8 33.3% D 3 12.5% F 7 29.2% Number of Students 1 5 8 3 7 Percentage 4.1% 20.8% 33.3% 12.5% 29.2% Concerns 1. Exam scores and performance on learning outcomes Although the final exam score average was lower for the full-semester course than the 8-week course (that was a surprise), both scores are truly horrible. Worse, in the full-semester course, students have 4 exams versus the 2 in the short course. I would have guessed that students who had more frequent testing would have done better. ACTION: (This assessment is for the short MATH 95 course, so I will focus the discussion on that course, though clearly both courses need work.) Due to the accelerated nature of the course, I had been reluctant to add more work, but starting this |

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| | | | <p>summer, I will add a weekly take-home quiz. I hope that students will benefit from more lower-risk work and from getting more consistent and regular feedback from me.</p> <p>2. The high number of 'F' grades In the short course, 4 of the 5 students who earned a failing grade participated through the end of the course. In the full-semester course, 5 of the 7 students who earned a grade of 'F' never finished the course. The fact that there was a better persistence rate (for the students who earned 'F' grades) in the 8-week course is very surprising, but is most likely an anomaly. Anecdotally, I feel that many of the students who take the 8-week course are not at all prepared for the pace and discipline required, particularly the high school students. I did send out letters in advance of the start of the semester detailing the amount of work and explaining any problems that are present in a 16-week course (lack of time for homework, difficulty with the subject matter, unreliable internet/computer) are exacerbated in an 8-week course. If we are to believe the general characteristics of the millennial and now iGen students, these warnings may have gone unheeded, since these students</p> |

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have a strong faith in their ability to succeed. However, I will redouble my efforts in getting the word out prior to and during the first week of the semester. I have already ordered a copy of "Teach Students How to Learn" by Sandra McGuire and would like to try some of the things she suggests, including an assessment early in the semester, followed by a full lecture on how to study. I have not really spent the equivalent of a full class period addressing study skills, but it is a poor assumption on my part to believe these students already know what to do.

(02/09/2018)