

Departmental Outcomes Assessment Report



For: Math/Computer Science

Here is your outcomes assessment report, which contains both Fall and Winter terms. For Winter term, of the twenty-seven sub-outcomes, sixteen were assessed across five different sections. The number of assessments has greatly increased over fall term (from 133 to 286) – Thank you! The total assessments for both terms is 419. While each outcome is totaled within each term, there is no total across the terms for each outcome and sub-outcome. I will work on this.

The overall assessment shows that 112 assessments for students over 44 credits (2nd year students) were 63% successful, while those under 45 were 78% successful. The disparity is due to higher markings for some developmental sections assessed, while others are as low or lower than MTH111. A conversation to make the assessment consistent across sections and instructors should be had even if it is found that the disparities are justified. When compared to the assessment averages, the average of the student over all GPAs shows little consistency although the data set is too thin to draw confident conclusions. The numbers demonstrate that there is room for improvement of student learning, but a deeper analysis will need to take place by the department to inform and guide improvement. With that analysis, you can work to improve either the assessment process or the instruction/curriculum.

When looking at each sub-outcome, there still may not be enough of a sample size to have much confidence in the results. With the consistency of the success data, you may want to consider selecting a “focus outcome” and develop strategies to improve on that outcome for 2015-16 then after next year, see if the data show improvement. This determination can wait for the spring term results come in, but now is a good time to contemplate how the data can be used.

As you look at the results, both individually and collectively, please start the conversation to address the following points. We can wrap up the conversation at the end of the year or the beginning of next (when we have spring term results):

1. Do the data adequately inform student success on the outcomes and sub-outcomes?
2. Do the data combine with the outcomes and sub-outcomes to present an accurate aggregate picture of student learning?
3. Are the outcomes “actionable?” That is, once you are provided with adequate data, how confident are you that the results will show and then guide instructional/curricular improvements?

Year and Term: Fall, 2014

MTH025.1 - Demonstrate knowledge of signed numbers, fractions, decimals and percents.

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MTH025.1.A - Can student add and subtract signed numbers?

Course Assessed: MTH025-06

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTH025.1.A: 1 Over 44 credits pass rate: 100% Avg GPA: 2.67

Students under 45 credits assessed: 16 Under 45 credits pass rate: 91% Avg GPA: 2.03

MTH025.1.C - Can student add and subtract fractions?

Course Assessed: MTH025-02

MTHo25.1 - Demonstrate knowledge of signed numbers, fractions, decimals and percents.

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTHo25.1.C: 1 Over 44 credits pass rate: 100% Avg GPA: 2.99
Students under 45 credits assessed: 8 Under 45 credits pass rate: 81% Avg GPA: 2.48

Students over 44 credits-earned average: 81

Students over 44 credits assessed for MTHo25.1: 2 Over 44 credits pass rate: 100% Avg GPA: 2.83
Students under 45 credits assessed: 24 Under 45 credits pass rate: 88% Avg GPA: 2.18

Students over 44 credits assessed for outcome MTHo25.1: 2	Over 44 credits pass rate: 100%
Students under 45 credits assessed for outcome MTHo25.1: 24	Under 45 credits pass rate: 88%

MTHo70.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

MTHo70.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

MTHo70.1.A - Can student simplify algebraic expressions?

Course Assessed: **MTHo70-65**

Over 44 credits scoring 02 or higher: 2

Students over 44 credits assessed for MTHo70.1.A: 3 Over 44 credits pass rate: 50% Avg GPA: 2.40
Students under 45 credits assessed: 9 Under 45 credits pass rate: 78% Avg GPA: 3.21

MTHo70.1.B - Can student solve formulas for various variables?

Course Assessed: **MTHo70-65**

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTHo70.1.B: 3 Over 44 credits pass rate: 42% Avg GPA: 2.40
Students under 45 credits assessed: 9 Under 45 credits pass rate: 89% Avg GPA: 3.21

MTHo70.1.C - Can student solve linear equations?

Course Assessed: **MTHo70-65**

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTHo70.1.C: 3 Over 44 credits pass rate: 42% Avg GPA: 2.40
Students under 45 credits assessed: 9 Under 45 credits pass rate: 72% Avg GPA: 3.21

MTHo70.1.D - Can student graph and create equations of lines?

Course Assessed: **MTHo70-65**

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTHo70.1.D: 3 Over 44 credits pass rate: 42% Avg GPA: 2.40
Students under 45 credits assessed: 9 Under 45 credits pass rate: 81% Avg GPA: 3.21

MTHo70.1.E - Can student solve systems of equations?

Course Assessed: **MTHo70-65**

MTH070.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTH070.1.E: 3 Over 44 credits pass rate: 25% Avg GPA: 2.40
Students under 45 credits assessed: 9 Under 45 credits pass rate: 69% Avg GPA: 3.21

Students over 44 credits-earned average: 49

Students over 44 credits assessed for MTH070.1: 15 Over 44 credits pass rate: 40% Avg GPA: 2.40
Students under 45 credits assessed: 45 Under 45 credits pass rate: 78% Avg GPA: 3.21

Students over 44 credits assessed for outcome MTH070.1: 15	Over 44 credits pass rate: 40%
Students under 45 credits assessed for outcome MTH070.1: 45	Under 45 credits pass rate: 78%

MTH095.1 - Demonstrate ability to work with quadratic equations, rational equations, radical and fractional exponents and equations.

MTH095.1 - Demonstrate ability to work with quadratic equations, rational equations, radical and fractional exponents and equations.

MTH095.1.B - Can the student solve factorable quadratic equations?

Course Assessed: **MTH095-03**

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTH095.1.B: 2 Over 44 credits pass rate: 50% Avg GPA: 2.52
Students under 45 credits assessed: 11 Under 45 credits pass rate: 98% Avg GPA: 3.11

Students over 44 credits-earned average: 127

Students over 44 credits assessed for MTH095.1: 2 Over 44 credits pass rate: 50% Avg GPA: 2.52
Students under 45 credits assessed: 11 Under 45 credits pass rate: 98% Avg GPA: 3.11

Students over 44 credits assessed for outcome MTH095.1: 2	Over 44 credits pass rate: 50%
Students under 45 credits assessed for outcome MTH095.1: 11	Under 45 credits pass rate: 98%

MTH111.1 - Demonstrate ability to work with functions

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MTH111.1.B - Can the student create and manipulate arithmetic combinations of functions, composition of functions, and inverse functions?

Course Assessed: **MTH111-01**

Course Assessed: **MTH111-02**

Over 44 credits scoring 02 or higher: 12

Students over 44 credits assessed for MTH111.1.B: 21 Over 44 credits pass rate: 63% Avg GPA: 2.87
Students under 45 credits assessed: 13 Under 45 credits pass rate: 67% Avg GPA: 2.98

MTH111.1 - Demonstrate ability to work with functions

Students over 44 credits-earned average: 72

Students over 44 credits assessed for MTH111.1: 21 Over 44 credits pass rate: 63% Avg GPA: 2.87
Students under 45 credits assessed: 13 Under 45 credits pass rate: 67% Avg GPA: 2.98

Students over 44 credits assessed for outcome MTH111.1: 21	Over 44 credits pass rate: 63%
Students under 45 credits assessed for outcome MTH111.1: 13	Under 45 credits pass rate: 67%

Year and Term: Winter, 2015

MTH070.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

MTH070.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

MTH070.1.A - Can student simplify algebraic expressions?

Course Assessed: MTH070-03

Course Assessed: MTH070-65

Over 44 credits scoring 02 or higher: 3

Students over 44 credits assessed for MTH070.1.A: 6 Over 44 credits pass rate: 67% Avg GPA: 2.83
Students under 45 credits assessed: 12 Under 45 credits pass rate: 79% Avg GPA: 2.36

MTH070.1.B - Can student solve formulas for various variables?

Course Assessed: MTH070-65

Over 44 credits scoring 02 or higher: 2

Students over 44 credits assessed for MTH070.1.B: 3 Over 44 credits pass rate: 67% Avg GPA: 2.73
Students under 45 credits assessed: 7 Under 45 credits pass rate: 68% Avg GPA: 2.75

MTH070.1.C - Can student solve linear equations?

Course Assessed: MTH070-65

Over 44 credits scoring 02 or higher: 2

Students over 44 credits assessed for MTH070.1.C: 3 Over 44 credits pass rate: 67% Avg GPA: 2.73
Students under 45 credits assessed: 7 Under 45 credits pass rate: 68% Avg GPA: 2.75

MTH070.1.D - Can student graph and create equations of lines?

Course Assessed: MTH070-65

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTH070.1.D: 3 Over 44 credits pass rate: 42% Avg GPA: 2.73
Students under 45 credits assessed: 6 Under 45 credits pass rate: 54% Avg GPA: 2.81

MTH070.1.E - Can student solve systems of equations?

Course Assessed: MTH070-65

MTH070.1 - Demonstrate ability to work with expressions, formulas, equations, exponents and polynomials.

Over 44 credits scoring 02 or higher: 2

Students over 44 credits assessed for MTH070.1.E: 3 Over 44 credits pass rate: 58% Avg GPA: 2.73
Students under 45 credits assessed: 6 Under 45 credits pass rate: 54% Avg GPA: 2.81

MTH070.1.F - Can student apply laws of non-negative integer exponents?

Course Assessed: **MTH070-65**

Over 44 credits scoring 02 or higher: 2

Students over 44 credits assessed for MTH070.1.F: 3 Over 44 credits pass rate: 58% Avg GPA: 2.73
Students under 45 credits assessed: 5 Under 45 credits pass rate: 75% Avg GPA: 2.69

MTH070.1.G - Can student perform arithmetic operations with polynomials?

Course Assessed: **MTH070-65**

Over 44 credits scoring 02 or higher: 3

Students over 44 credits assessed for MTH070.1.G: 3 Over 44 credits pass rate: 75% Avg GPA: 2.73
Students under 45 credits assessed: 5 Under 45 credits pass rate: 65% Avg GPA: 2.69

Students over 44 credits-earned average: 60

Students over 44 credits assessed for MTH070.1: 24 Over 44 credits pass rate: 63% Avg GPA: 2.76
Students under 45 credits assessed: 48 Under 45 credits pass rate: 68% Avg GPA: 2.66

Students over 44 credits assessed for outcome MTH070.1: 24	Over 44 credits pass rate: 63%
Students under 45 credits assessed for outcome MTH070.1: 48	Under 45 credits pass rate: 68%

MTH095.1 - Demonstrate ability to work with quadratic equations, rational equations, radical and fractional exponents and equations.

MTH095.1 - Demonstrate ability to work with quadratic equations, rational equations, radical and fractional exponents and equations.

MTH095.1.A - Can the student factor quadratics?

Course Assessed: **MTH095-01**

Over 44 credits scoring 02 or higher: 5

Students over 44 credits assessed for MTH095.1.A: 5 Over 44 credits pass rate: 95% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 100% Avg GPA: 3.05

MTH095.1.B - Can the student solve factorable quadratic equations?

Course Assessed: **MTH095-01**

Over 44 credits scoring 02 or higher: 5

Students over 44 credits assessed for MTH095.1.B: 5 Over 44 credits pass rate: 95% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 100% Avg GPA: 3.05

MTH095.1.C - Can the student solve non-factorable quadratic equations?

Course Assessed: **MTH095-01**

MTH095.1 - Demonstrate ability to work with quadratic equations, rational equations, radical and fractional exponents and equations.

Over 44 credits scoring 02 or higher: 5
Students over 44 credits assessed for MTH095.1.C: 5 Over 44 credits pass rate: 90% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 77% Avg GPA: 3.05

MTH095.1.D - Can the student perform arithmetic operations on rational expressions?

Course Assessed: **MTH095-01**

Over 44 credits scoring 02 or higher: 5
Students over 44 credits assessed for MTH095.1.D: 5 Over 44 credits pass rate: 85% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 75% Avg GPA: 3.05

MTH095.1.E - Can the student solve rational equations?

Course Assessed: **MTH095-01**

Over 44 credits scoring 02 or higher: 5
Students over 44 credits assessed for MTH095.1.E: 5 Over 44 credits pass rate: 60% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 82% Avg GPA: 3.05

MTH095.1.F - Can the student simplify radical and fractional exponents?

Course Assessed: **MTH095-01**

Over 44 credits scoring 02 or higher: 3
Students over 44 credits assessed for MTH095.1.F: 5 Over 44 credits pass rate: 45% Avg GPA: 3.37
Students under 45 credits assessed: 11 Under 45 credits pass rate: 75% Avg GPA: 3.05

MTH095.1.G - Can the student solve radical equations?

Course Assessed: **MTH095-01**

Course Assessed: **MTH095-06**

Over 44 credits scoring 02 or higher: 3
Students over 44 credits assessed for MTH095.1.G: 9 Over 44 credits pass rate: 72% Avg GPA: 3.34
Students under 45 credits assessed: 25 Under 45 credits pass rate: 58% Avg GPA: 2.67

Students over 44 credits-earned average: 72

Students over 44 credits assessed for MTH095.1: 39 Over 44 credits pass rate: 77% Avg GPA: 3.37
Students under 45 credits assessed: 91 Under 45 credits pass rate: 77% Avg GPA: 2.95

Students over 44 credits assessed for outcome MTH095.1: 39	Over 44 credits pass rate: 77%
Students under 45 credits assessed for outcome MTH095.1: 91	Under 45 credits pass rate: 77%

MTH111.1 - Demonstrate ability to work with functions

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MTH111.1.B - Can the student create and manipulate arithmetic combinations of functions, composition of functions, and inverse functions?

Course Assessed: **MTH111-01**

MTH111.1 - Demonstrate ability to work with functions

Over 44 credits scoring 02 or higher: 1

Students over 44 credits assessed for MTH111.1.B: 3 Over 44 credits pass rate: 42% Avg GPA: 3.13
Students under 45 credits assessed: 3 Under 45 credits pass rate: 75% Avg GPA: 2.62

MTH111.1.E - Can the student find all complex zeros of functions?

Course Assessed: **MTH111-01**

Over 44 credits scoring 02 or higher: 3

Students over 44 credits assessed for MTH111.1.E: 6 Over 44 credits pass rate: 33% Avg GPA: 2.67
Students under 45 credits assessed: 7 Under 45 credits pass rate: 54% Avg GPA: 3.06

Students over 44 credits-earned average: 82

Students over 44 credits assessed for MTH111.1: 9 Over 44 credits pass rate: 36% Avg GPA: 2.82
Students under 45 credits assessed: 10 Under 45 credits pass rate: 60% Avg GPA: 2.93

Students over 44 credits assessed for outcome MTH111.1:	9	Over 44 credits pass rate:	36%
Students under 45 credits assessed for outcome MTH111.1:	10	Under 45 credits pass rate:	60%

Total students over 44 credits assessed: 112 Over 44 credits overall pass rate: 63%
Total students under 45 credits assessed: 307 Under 45 credits overall pass rate: 78%