Assessment: Course Four Column

Courses (MATH) - Math

MATH 126E:Precalculus I Expanded

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Equations and inequalities - Solve a variety of equations and inequalities including linear, quadratic, polynomial, rational, absolute value, logarithmic, and exponential **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	**Exam -** Final Exam #10 #11 #12 #13 #14 #15 #27 #28 **Criterion:** For all outcomes, success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #10 41% successful #11 21% successful #12 69% successful #13 69% successful #14 63% successful #15 72% successful #27 41% successful #28 10% successful (09/19/2016)	**Action:** None of these success rates are where I would like them to be. One change I will make is to have a weekly topic in WebCampus in which I will try to point out common mistakes and try to fit the current topic more clearly into the overall structure of the course. This is in addition to the lectures that I record for each section. These changes apply to all of the outcomes for the course. (09/19/2016)
Graph a variety of functions - Graph a variety of functions including linear, quadratic, polynomial, absolute value, rational, greatest integer, exponential, logarithmic and piecewise-defined functions by finding domain, range, zeros, intercepts, asymptotes, and describing symmetries **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	**Exam -** Final Exam #1 #16 #17 #18 #19 #24 #25 #26 **Criterion:** Success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #1 66% successful #16 86% successful #17 34% successful #18 69% successful #19 66% successful #24 34% successful #25 45% successful #26 52% successful (06/20/2016)	
Solve systems of equations with two or three variables - Solve systems of	**Exam -** Final Exam #2	**Reporting Period:** 2015-2016 **Criterion Met:** N/A	

Course Outcomes	Assessment Measures	Results	Actions
equations with two or three variables using substitution, addition, Cramer's Rule, Gaussian elimination, or the inverse of a matrix. (Gaussian elimination and matrix inversion optional) **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	#3 #4 #5 #6 #7 #8 **Criterion:** For all outcomes, success is students earning full credit on problems.	#2 72% successful #3 79% successful #4 45% successful #5 38% successful #6 52% successful #7 31% successful #8 31% successful (06/20/2016)	
Operations on complex numbers and matrices - Perform operations on complex numbers and matrices (Matrix inversion is optional.) **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	**Exam -** Final Exam #9 **Criterion:** Success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #9 72% successful (06/20/2016)	
Variety of real-world problems - Solve a variety of real-world problems involving quadratics, linear systems of equations, exponential and logarithmic functions **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	**Exam -** #29 #30 #31 **Criterion:** Success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #29 45% successful #30 66% successful #31 31% successful (06/20/2016)	
Operations on functions - Perform operations on functions, find the domain and range of a function as well as the inverse and difference quotient **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 06/20/2016	**Exam -** Final Exam #20 #23 **Criterion:** Success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #20 28% successful #23 17% successful (06/20/2016)	
Factor polynomials - Use synthetic division, the Division algorithm, Remainder Theorem, and Factor Theorem to factor polynomials **Course Outcome Status:** Active **Next Assessment:** 2020-2021	**Exam -** Final Exam #21 #22 **Criterion:** Success is students earning full credit on problems.	**Reporting Period:** 2015-2016 **Criterion Met:** N/A #21 24% successful #22 52% successful (06/20/2016)	**Action:** In this class I noticed a disturbing trend. The overall average of the exams dropped with each successive exam. The chapter 1 exam was high at 86.65%. All the exams remained above 70% until the

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Start Date: 06/20/2016			final. The average for the final was 59.41%. As far as changes, I think I will test the graphing separately. Students seemed unable to graph, yet in other versions of this class (126, 128) students seem to do the best at graphing. This is the first time I have taught this specific Math 96 and Math 126 combination; however, I am very familiar with the material from years of teaching either the traditional Math 126 or Math 128, the combined precalculus and trigonometry course. Frankly, all of this is discouraging. This course was online. When I do the online version again, I will try to have more frequent informal spot checks. The problem with online courses is that it can be difficult for students to get to campus, so I try not to ask students to have proctored exams more than 5 or 6 times throughout the semester. In order not to increase the burden of coming to campus, I will have to keep the more informal assessments non-proctored. (06/20/2016)