# Assessment: Course Four Column



## Courses (MATH) - Math

### MATH 126 JUNG :Pre Calculus  I

| Course Outcomes | Assessment Measures | Results | Actions |
|---|---|---|---|
| **Equations and inequalities including linear, quadratic, polynomial, rational, absolute value, logarithmic, and exponential -** Solve a variety of equations and inequalities including linear, quadratic, polynomial, rational, absolute value, logarithmic, and exponential. <br> **Course Outcome Status:** Active <br> **Next Assessment:** 2022-2023 | **Exam -** Exam Ch. 1 and 4 <br> **Criterion:** Overall average score of 70% on the two exams | **Reporting Period:** 2017-2018 <br> **Criterion Met:** Yes <br> The overall achievement on Ch. 1 and Ch. 4 exam was 74.7% and 69.4% respectively. The average of the exam scores is 72%. (01/16/2019) | |
| **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. <br> **Course Outcome Status:** Active <br> **Next Assessment:** 2022-2023 | **Exam -** #1, 2, 3, 7, 8 on Exam Ch. 2 <br> **Criterion:** Overall average of 70 % of students achieve on the problems. | **Reporting Period:** 2017-2018 <br> **Criterion Met:** Yes <br> Overall 73% of students showed satisfactory performance on the learning outcome. <br><br> Problems Achievement <br> #1　　75% <br> #2　　91% <br> #3　　56% <br> #7　　65% <br> #8　　78% <br> overall　73% (01/16/2019) | |
| **Perform operations on functions -** Perform operations on functions, find the domain and range of a function as well as the inverse and difference | **Exam -** #4, 15, 16, 18 on Exam Ch. 2 <br> **Criterion:** Overall average of 70 % of students achieve on the problems. | **Reporting Period:** 2017-2018 <br> **Criterion Met:** No <br> The overall achievement was 47.8% on this learning outcome. | **Action:** 1. Review homework and quiz assignments. Assign better problems for understanding concepts. |

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| quotient.<br>**Course Outcome Status:** Active<br>**Next Assessment:** 2022-2023 | | Problems Achievements<br>#4      31%<br>#15    66%<br>#16    78%<br>#18    16%<br>Overall   47.8% (01/16/2019) | 2. For problems that students are having difficulty with, I will produce videos to go over the problems and distribute the videos to students.<br>3. I plan to cover the sections 1.1, 1.3, 1.7 and 1.8 which are the basic foundations of Chapter 2. (01/16/2019) |
| **Use synthetic division, the Division algorithm, Remainder Theorem, and Factor Theorem to factor polynomials** - Use synthetic division, the Division algorithm, Remainder Theorem, and Factor Theorem to factor polynomials<br>**Course Outcome Status:** Active<br>**Next Assessment:** 2022-2023 | **Exam -** Exam Ch. 3<br>**Criterion:** Average 70% on each exam | **Reporting Period:** 2017-2018<br>**Criterion Met:** Yes<br>The average score was 77.3%. (01/16/2019) | |
| **Real-world problems involving quadratics, linear systems of equations, exponential and logarithmic function** - Solve a variety of real-world problems involving quadratics, linear systems of equations, exponential and logarithmic function<br>**Course Outcome Status:** Active<br>**Next Assessment:** 2022-2023 | **Quiz -** Homework and Quiz on Section 4.6<br>**Criterion:** Overall average of 70% on the homework and quiz combined. | **Reporting Period:** 2017-2018<br>**Criterion Met:** Yes<br>Students achieved 76% on the homework and 66% on the quiz. Overall achievement was 71%. (01/16/2019) | **Action:** Students did not do well on the quiz. I will plan to produce videos regarding the quiz problems and distribute them to students. (01/16/2019) |
| **Solve systems of equations with two or three variables** - Solve systems of 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)<br>**Course Outcome Status:** Active<br>**Next Assessment:** 2022-2023 | **Assignment - Written -** Homework and quiz on each section of Ch. 9<br>**Criterion:** Overall average of 70% on the homework and quiz combined | **Reporting Period:** 2017-2018<br>**Criterion Met:** Yes<br>The overall achievement was 82% on this learning outcome.<br>Assignments      Achievement<br>Homework 9.1    88%<br>Homework 9.2    75%<br>Homework 9.3    88%<br>Homework 9.4    77%<br>Homework 9.5    83%<br>Quiz 9.1  74% | |

| | | Quiz 9.2 85% | |
| | | Quiz 9.3 82% | |
| | | Quiz 9.4 69% | |
| | | Quiz 9.5 92% | |
| | | Overall 81% (01/16/2019) | |

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| **Perform operations on complex numbers and matrices -** Perform operations on complex numbers and matrices (Matrix inversion is optional.)<br>**Course Outcome Status:** Active<br>**Next Assessment:** 2022-2023 | **Assignment - Written -** Homework and quiz on section 1.3 and 9.7.<br>**Criterion:** Overall average of 70% on the homework and quiz combined | **Reporting Period:** 2017-2018<br>**Criterion Met:** Yes<br>Assignments    Achievement<br>Homework 9.7    85%<br>Homework 1.3    94%<br>Quiz 9.7  88%<br>Quiz 1.3  90%<br>Overall    89% (01/16/2019) | **Action:** For online classes, the communication between the instructor and students is a key element for students' academic success. I will be establishing communication by using the webcampus announcements, email and other methods in future semesters. Using People Soft email, I will let students know the class information ahead of time, so students can prepare class materials such as purchasing a textbook, obtanining a My Math Lab license before the first day of the class.<br>Overall, the class did well. However, the identified weaknesses in the Math 126 Online-class were in the two learning outcomes; 1) Performing operations on functions, finding the domain and range of a function as well as the inverse and difference quotient, 2) Using synthetic division, the division algorithm, remainder theorem and factor theorem to factor polynomials.  Using the My Math Lab analysis, I can identify problems that students have the most difficulty with.  For these problems, I will be producing videos to go over problems especially the quiz problems. In |

| | | | addition, posting relevant YouTube videos will help students to understand the concepts. (01/16/2019) |