Course Outcomes 1 and ctu.unitid = 653	Means of Assessment & Criteria / Tasks	Results	Action & Follow-Up
MATH 126 - Precalculus I - Manipulate complex numbers & understand their relationship - Manipulate complex numbers, understanding their relationship to the solutions of polynomial and rational equations. 1-1. Multiplying complex numbers. 1-2. Finding quotients and write in the form a+bi. 1-3. Simplify powers of i. 1-4. Write radical as a product of a real number and i. **Next Assessment:** 2018-2019 **Start Date:** 08/11/2015 **Course Outcome Status:** Active	**Assessment Measure:** Exam Ch 1 **Assessment Measure Category:** Exam **Criterion:** 75% of the students achieve 100 % on this problem	08/11/2015 - Overall achievement was 64%. Among the four sub-categories of the outcome #1, learning, students showed lower performance on 1-2 finding quotients and writing in the form a+bi and 1-3 simplify powers of i. **Criterion Met:** No **Reporting Period:** 2014-2015	08/11/2015 - 1. Review number system before dealing with complex numbers for understanding the basic concepts. 2. Review of the relevant sections in Section R, R.2. 3. Utilize internet recorded materials. 4. More class examples and encourage class discussions.
MATH 126 - Precalculus I - Distinguish and obtain the equations of circles and parabolas - Distinguish and obtain the equations of circles and parabolas. 4-1. Find the center-radius form of the equation of a circle and graph it. 4-2. Identify circles and give the center and radius. **Next Assessment:** 2018-2019 **Start Date:** 08/11/2015 **Course Outcome Status:** Active	**Assessment Measure:** Exam Ch 2 **Assessment Measure Category:** Exam **Criterion:** 75% of the students achieve 100 % on this problem	08/11/2015 - Overall achievement was 66.7 % **Criterion Met:** No **Reporting Period:** 2014-2015	08/11/2015 - Section 2.1 Rectangular Coordinates and Graphs especially in the distance formula and the midpoint formula explains basic concepts regarding Graphs and Functions of Chapter 2. Section 2.1 will be scheduled for better understanding of the learning outcome.
MATH 126 - Precalculus I - Operate on functions, including composition and parabolas - Operate on functions, including composition and parabolas. **Next Assessment:** 2018-2019 **Start Date:** 08/11/2015 **Course Outcome Status:** Active	**Assessment Measure:** Exam Ch2 **Assessment Measure Category:** Exam **Criterion:** 75% of the students achieve 100 % on this problem	08/11/2015 - Overall achievement was 53.3 % **Criterion Met:** No **Reporting Period:** 2014-2015	08/11/2015 - More exercise for homework assignment needed for arithmetic operations on functions and function compositions.
MATH 126 - Precalculus I - Analyze functions by finding roots, turning points, and asymptotes - Analyze functions by finding roots, turning points, and asymptotes.	**Assessment Measure:** Exam Ch 3 **Assessment Measure Category:** Exam **Criterion:**	08/11/2015 - Overall achievement was 63 % **Criterion Met:** No **Reporting Period:**	08/11/2015 - 1. Section 3.1 Quadratic functions and Models will be scheduled for the next syllabus plan for better understanding of the learning

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Next Assessment: 2018-2019 **Start Date:** 08/11/2015 **Course Outcome Status:** Active	75% of the students achieve 100 % on this problem	2014-2015	outcome#3. 2. Basic examples will be addressed for understanding of the terminology such as roots, turning points etc.
MATH 126 - Precalculus I - Solve a variety of equations - Solve a variety of equations (polynomial, exponential, logarithmic) 6-1 (exponential): Solving exponential equations. 6-2 (logarithmic): Solving logarithmic equations. **Next Assessment:** 2018-2019 **Start Date:** 08/11/2015 **Course Outcome Status:** Active	**Assessment Measure:** Exam Ch 4 **Assessment Measure Category:** Exam **Criterion:** 75% of the students achieve 100 % on this problem	08/11/2015 - Overall achievement was 66.2 % **Criterion Met:** No **Reporting Period:** 2014-2015	08/11/2015 - 1. Develop a diverse way of concept explanations such as utilizing Khan Academy, relevant Youtube videos, and so on. 2. Give students with problem solving opportunities on the board for the material. 08/10/2015 - I categoried some learning objectives in further sub-categores for the purpose of detailed analysis. This will assist me in creating more effective action plans. Weaknesses were identified in the following topics; manipulating complex numbers, understanding their relationship to solutions of polynomials and rational equations, distinguishing and obtaining the equations of circles and parabolas, operating on functions, analyzing functions, solving equations involving exponent and logarithm. The action plans include reviewing basic concept materials from previous courses, utilizing internet technology for demonstrations, adding sections that were excluded in the syllabus, addressing more examples in the class and utilizing class discussions. The following points will assist in improving the weaknesses. Also, while preparing this report, I identified some missing General education objectives in Math 126 student learning outcomes. The general education objectives #1 and 2 were chosen to be measured. The appropriate exam problems will be used to measure the objectives. 1. The sections, R.2, R.4, R.5, 2.1, 3.1 will be discussed and included in the schedule. 2. In order to better illustrate the graphing functions; circles and linear functions, polynomial and rational

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			functions, and exponential and logarithmic functions, internet technology will be used such as posting relevant Youtube videos on Webcampus and using those in the class discussions.
			3. Developing more teaching strategies for students understanding of the terminology.
			4. 5 minutes question and answer session at the beginning of each class. The purpose is to remind students of the key materials from last class.
			5. More examples will be addressed, and students will be encouraged to participate in class discussions on those challenging sections.