

 <h1 style="text-align: center;">Unit Planning</h1>		
<b>Unit Number</b>	<b>Unit Name</b>	<b>Person Responsible</b>
016070	Mathematics (MTH)	Paige Feibelman

Outcome Number:	1
Year:	2013-2014
Outcome Type:	Student Learning Outcome
Outcome:	Seventy percent or more of the students enrolled in Pre-Calculus Algebra courses will correctly divide complex numbers on the final exam during fall semester 2013 and spring semester 2014.
Institutional Goal:	Goal 1 - Provide students comprehensive and accessible instructional opportunities through community based education, dual enrollment, academic transfer, technical education, health science, and work force development programs.
Initial Assessment:	Based on the 2012-13 final exam analysis, 15 online students and 336 traditional students completed the Pre-Calculus Algebra final exam during fall semester 2012. Forty percent of online students and 53% of traditional students correctly evaluated and answered problems involving dividing complex numbers. During spring semester 2013, 24 online students and 310 traditional students completed the final exam. Forty-six percent of online students and 52% of traditional students correctly evaluated and answered problems involving dividing complex numbers.
Scheduled Completion Date:	Spring 2014
Budget Amount:	NA
Action Plan:	1.) During the fall and spring semester, instructors will encourage students who correctly solve and answer less than 70 % of the problems on chapter tests related to dividing complex numbers to take advantage of the free math tutorial services offered by the college. 2.) Instructors will review the success rates of students in Pre-Calculus Algebra courses who have previously completed an Intermediate Algebra course with a grade of "C" or higher. 3.) Instructors will provide additional practice problems that reinforce the algorithm for dividing complex numbers. 4.) Instructors will introduce students to <a href="http://www.interactmath.com">www.interactmath.com</a> and encourage them to use the digital materials for additional quality instruction using text, animation and video. 5.) Instructors will review the 2013-14 final exam analysis in order to compare the results.
Outcome Measure:	The outcome will be measured by analyzing the percent of correct responses to problems related to dividing complex numbers on the Pre-Calculus Algebra final exam

during fall semester 2013 and spring semester 2014.

### OVERALL RESULTS

Results:	In the traditional class, 59% of the students were able to correctly divide complex numbers for fall semester 2013 and 56% of the students were able to correctly divide complex numbers for spring semester 2014.
Use of Results:	The final exam results will continue to be monitored. Faculty will continue to review and identify instructional strategies in order to improve the results.
Program Improvement:	Although there was a moderate improvement of six percent for Fall Semester and a four percent increase for Spring Semester in the percentage of traditional students successfully answering problems involving the division of complex numbers, the goal for 2013-14 was not met in the traditional classroom.

### DISTANCE EDUCATION RESULTS (if applicable to outcome)

Results:	In the online class, 26% of the students were able to correctly divide complex numbers for fall semester 2013 and 32% of the students divided complex numbers correctly for spring semester 2014. These results indicated a decrease from previous results for this skill.
Use of Results:	The final exam analysis will continued to be reviewed each semester. The methods of instructional delivery will be reviewed in the online course to insure that the instructional methods are equitable to those in the traditional courses.
Program Improvement:	The percentage of online students who correctly divided complex on the final exam decreased during fall semester 2013 and spring semester 2014. The goal for 2013-14 was not met in the online courses.

No  
Supporting  
File