



## Executive Summary

The Making Math Work Quality Enhancement Plan (QEP) represents Coastal Pines Technical College's commitment to ensuring that students have the mathematical skills they need for success in their occupational program. The overall goal of the QEP is to:

*Increase students' ability to apply mathematical concepts to practical applications within occupational programs through the introduction of manipulatives in math courses.*

The development of the QEP was a fluid process whereas the focus, framework and final product evolved over time as data and the goal changed during the development process.

Occupational instructors communicated that their students are not able to translate theoretical math concepts to work-based application. By bringing practical examples of real world, occupational, math-related scenarios into math classes, students will bridge the gap between theory and practice.

After careful evaluation of institutional data, it was determined that students taking degree level math tend to be successful; however, students in non-degree level programs tend to struggle with common occupational math concepts in the MATH 1012 course. The **Making Math Work** QEP focuses directly on the MATH 1012 course, three student learning outcomes (SLOs) reinforced through the use of 15 new Program Enhancement Units (PEUs) and manipulative toolkits used to teach these units. The SLOs are:

1. Students will perform basic mathematical calculations (addition, subtraction, multiplication and division) involving whole numbers, fractions, and decimals.
2. Students will interpret information in order to setup a mathematical expression or equation to solve a real-world application in their field of study, including percent and proportion problems.
3. Students will convert between units of measure in their field of study and be able to read instruments applicable to their field.

Math faculty will be trained on the proper use of occupational measuring tools and students will be encouraged to take advantage of tutoring. Occupational programs will assess math related SLOs specific to the occupational program. These assessments will assist CPTC in determining the impact of the overall QEP goal—increasing students' ability to apply mathematical concepts to practical applications within occupational programs.



For more information about Coastal Pines Technical College's QEP Project, contact:  
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