

# Closing the Gap in PreAlgebra MAT0012

**Operational Unit:** Mathematics and Science OSC

**Unit Purpose Statement:** Provide students opportunities for learning in the areas of science, mathematics, and psychology that develop the skills necessary for success in their future pursuits.

**Initiative Contact:** Melissa Pedone

**Strategic Initiative:** Learning Assured

**Goal Outcome:** Establish learning and learning support systems and techniques designed to reduce achievement gaps among groups of learners from diverse backgrounds.

**Objective:** Close achievement gaps

**Objective Description:** Close achievement gaps among students from diverse backgrounds in completing six key courses, leading to increased persistence and program completion rates. [Note: The six courses are: College Prep mathematics Pre-Algebra (MAT0012C) and Beginning Algebra (MAT 0024C), Intermediate Algebra (MAT1033), and "gateway" courses, Communications (ENC1101), Political Science (POS2041), and College Algebra (MAC1105).]

## Initiative's Relation to the Strategic Plan:

This initiative relates to Building Pathways and Learning Assured. PreAlgebra is the first math class that these students will take at Valencia so they need assistance transitioning from the college. We are also working to close achievement gaps among students from diverse backgrounds.

## Expected Results and the Means of Assessment

**Expected Results 1:** At the conclusion of the first year of implementation we will have identified a set of common assessment items that will be used to assess student learning in specific MAT0012 learning outcomes collegewide.

**Means of Assessment:** The creation and existence of the common items.

**Individual Responsible:** Common Assessment Faculty Team

**Expected Completion:** 8/31/2009

**Stakeholders:** Achieving the Dream/Foundation (10620) - Julie Phelps Institutional Research (10630) - Jeffrey Cornett

**Results:** A common set of five items was created and students enrolled in MAT0012 on all four campuses completed these items as part of their final exam.

**Expected Results 2:** In year 1, we will collect baseline data using the common assessment items for the purposes of comparisons to years 2 and 3.

**Means of Assessment:** The existence of baseline data for comparisons.

**Individual Responsible:** Math Deans and Prep Math Faculty

**Expected Completion:** 8/31/2009

**Stakeholders:**

**Results:** During fall and spring terms (200910, 200920) we collected student responses to five selected exam questions. We will be collecting student responses to the five selected final exam questions during summer term also, which is in progress.

**Expected Results 3:** In year one we will have articulated a plan for programmatic changes to implement in years 2 and 3 to improve student learning and close achievement gaps in the identified MAT0012 learning outcomes.

**Means of Assessment:** The existence of the plan for change.

**Individual Responsible:** Math Deans and Faculty

**Expected Completion:** 8/31/2009

**Stakeholders:**

**Results:** The plan has been devised by a college wide task force. It is described in an uploaded document called "MAT0012C Plan."

**Expected Results 4:** At the conclusion of this three-year plan gaps among students from different ethnic backgrounds in MAT0012 learning outcomes will be smaller than gaps measured in the baseline data.

**Means of Assessment:** Multiyear outcome will be measured by determining if performance gaps identified in baseline data among student demographic groups are lessened at the conclusion of the project.

**Individual Responsible:** Math Deans and Faculty

**Expected Completion:** 8/31/2011

**Stakeholders:**

**Results:** Baseline data has been gathered. Analysis of achievement gaps is in progress.

#### Implementation Plan

**action:** Common Assessment Team creates assessment items

**action:** Common Assessment Items used to collect baseline data with VID

**action:** Faculty with Deans create plan for programmatic change.

**action:** Implement plans for programmatic change to MAT0012 and collect data.

**Budget Requirements:** The large majority of MAT0012 instructors are part-time so approximately \$5000 will be needed to support annual collegewide MAT0012 workshops.

**Results to Improve:** The college wide task force focused on programmatic changes to MAT0012 that could be implemented for the upcoming academic year (2009-2010). Revisions to the instructional design for MAT0012 will need to be made in an iterative fashion as data is analyzed and as instructors provide feedback on the changes.

**Changes for Next Year:** We will gather student responses to selected items on the college wide exit exam and compare them to the baseline data we gathered this year. We will compare results among students from different ethnic backgrounds.

We will use next year's data to consider the programmatic changes implemented, and refine the instructional design for MAT0012 according to the data and instructor's feedback.

#### Additional Document Attachments

**File:** <http://net3.valenciacc.edu/sip/uploads/MAT0012C Plan doc.docx>