

## Two Week Review to Hurdle Developmental Mathematics

Prince George's Community College  
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### The Problem: 60% of first-time students place into Introductory Algebra or Arithmetic

- Our findings:
  - ◆ Many students can do excellent work and place accurately after a short, intense math review course.
  - ◆ A student who initially places in arithmetic is just as likely as higher placing students to successfully bypass developmental math by using the math review.

### Presentation

- Background
- History of Project
- Aggressive Advertising
- Course Description
- Statistics
- Current and Future Plans

### Developmental Math at Prince George's Community College

- Most affluent majority African-American county in U.S.
- 12,000 students were enrolled in fall of 2001.
- Of 1994 cohort of entering students who needed developmental math, five out of six were non-achievers over four years.
- Developmental Math: Arithmetic, Prealgebra, Introductory Algebra

### History of the Project

- 1995-96 collaboration with public schools
- Placement testing junior year at selected high schools
  - ◆ 53% place in developmental math
- Follow-up review course for participants at high school
  - ◆ 50% of participants by-pass developmental math
  - ◆ altered perception of secondary mathematics learning
  - ◆ math learning like language: disappears until used

- Immediate implementation on campus in August, 1996
  - ◆ Collaboration with Continuing Education
  - ◆ Two variations: 12-hour arithmetic or 20-hour arithmetic and algebra
- Move to credit area to facilitate financial aid.
- No placement criteria for original course
- Intermediate Algebra Review, 20-hour, requires Introductory Algebra placement, previous intermediate algebra

### Aggressive Advertising

- Letters, postcards, flyers in testing center
- Ads in schedule of classes
- Training sessions with counseling staff
- First week information on options in developmental math

### Program Description

- Three variations:
  - ◆ Arithmetic Only Review, ~\$65, 12 hours
  - ◆ Arithmetic and Algebra Review, ~\$120, 20 hours
  - ◆ Intermediate Algebra Review, ~\$120, 20 hours

- Instructor and tutor, available before, during, after class
- Texts: problem sets covering all course objectives with answer keys
  - ◆ problem set developed by adjunct instructors
- Accuplacer given at the end of the course to determine correct placement.
  - ◆ Computer lab available for internet testing; non-peak seasons

- Excerpt from schedule page

Day 7	! Systems of Equations ! Polynomials and Rational Expressions
Day 8	! Solving Word Problems - III ! Graphing Lines
Day 9	! Graphing Lines - II ! Operations with Radicals ! Quadratic Equations ! Final Review

- Scheduling
  - ◆ just before fall and spring semesters
  - ◆ in June
  - ◆ during first month of fall/spring (4-week)
    - ◆ followed by late-start/half semester classes
  - ◆ day and evening sessions

- Staffing:
  - ◆ developmental math instructors
    - ◆ + adjunct or overload pay
  - ◆ tutors
    - ◆ + \$10/hr
  - ◆ coordinator, two hours release time

## Statistics

- 400 students take the review courses annually, over 90% taking the Arithmetic and Algebra review
- approximately one-third take the review with no intention of enrolling at the college

Math Review Statistics for June 2000-September 2001

	Total Enrollment	Test Taken	Student moved at least <b>one</b> course higher
June 2000	95	50	86% (43 students)
Aug 2000	168	117	55% (64 students)
Sept 2000	63	44	55% (24 students)
Jan 2001	63	35	54% (19 students)
Feb 2001	51	30	70% (21 students)
June 2001	88	67	67% (43 students)
August 2001	119	92	48% (44 students)
Sept 2001	64	35	49% (17 students)

## August 1998 - January 2000

- 50% of students taking the post-test placed in intermediate algebra or higher.
- 57% of the above students who enrolled in intermediate algebra the next semester passed with a grade of C or higher.

- These students succeed at a higher level in the subsequent mathematics courses than either traditional developmental math students or students who place directly into those courses.

## Current and Future Plans

- Possible on-line version
- Continue longitudinal studies
- Increase efforts to better inform first-time students
- Better ads for the intermediate algebra review

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