



Mathematics Program Overview

January 21, 2015

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Current Program (2014-15)

Algebra I

Algebra Accelerated (1 period) (Grade 8)

Algebra I (1 period)

Algebra with lab (1.5 periods)

Algebra Forward (2 periods)

Geometry

Geometry Accelerated (1 period)

Geometry (1 period)

Geometry with lab (1.5 periods)

Intermediate Algebra (1 period)

Algebra II

Algebra 2/Trig Accelerated (1 period)

Algebra 2/Trig (1 period)

Algebra 2/Trig with lab (1.5 periods)

Algebra 2/Trig Forward (2 periods)

Challenges

- Time constraints with teaching Common Core math
 - NYS Modules designed for 50-60 minutes
- Placement
 - Too many models
 - Timeframe for scheduling

Time Constraints

- **Recommendation**

- All Regents level math classes meet for an additional instructional period on alternating days

- **Rationale**

- Data supports that the additional lab period implemented in the middle schools had a positive impact on student performance

	2013 Passing Rate	2014 Passing Rate	Change
Grade 6	31%	49%	+ 18 points
Grade 7	35%	44%	+ 9 points

- Feedback from Algebra and Geometry teachers consistently indicates that 42 minutes per day is not sufficient for implementing recommended instructional strategies

Common Core Mathematics Classroom

- Higher level of rigor
- Focus on conceptual learning
- Student-centered learning
- Exploratory activities
- Flexible grouping

“Replacing lectures with interactive learning between teachers and students, especially learning to a richer and higher level, will require more classroom time, as teachers will have to personalize their attention to individual and small groups of students.”

-- Center for American Progress

Placement

- **Recommendation**

- Fewer models for each Regents level course
- Intervention “bridge” courses designed to keep students on path for an Advanced Regents Diploma

- **Rationale**

- Geometry and Algebra 2/Trig Forward classes have not produced acceptable passing rates. Geometry Forward was eliminated this year and replaced with “bridge” course Intermediate Algebra
- Current Algebra 2/Trig Forward classes have overall passing rate of 75% while the passing rate for seniors who passed the “bridge” course (Essentials of Algebra 2/Trigonometry) as juniors is 90%

Proposed Program (2015-16)

Algebra I

Algebra I Accelerated (1 period, Grade 8)

Algebra I with lab (1.5 periods)

Algebra I Forward (2 periods)

Geometry

Geometry Honors (1 period)

Geometry with lab (1.5 periods)

Geometry Essentials (1 period)

Algebra II

Algebra II Honors (1 period)

Algebra II with lab (1.5 periods)

Algebra II Essentials (1 period)

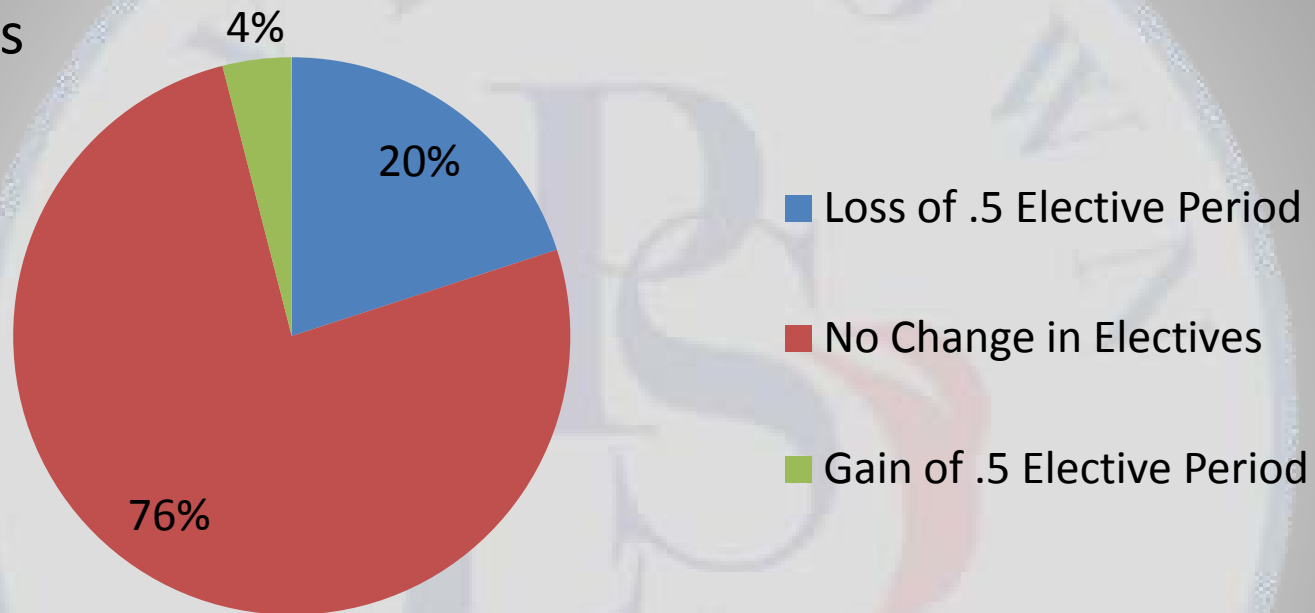
Goals of Proposed Changes

1. Provide adequate time for the effective delivery of common core instruction in the Regents level courses
2. Ensure that all students obtain a Regents diploma: Algebra 1 Forward intervention course is designed to provide a high level of support to our weakest students
3. Encourage more students to obtain an Advanced Regents Diploma: “Bridge” intervention courses (Geometry Essentials, Algebra II Essentials) are designed to keep students on the path to success
4. Add rigor and coherence to the Honors/Accelerated Program: Honors Vertical Team project

Potential Impact of Changes

2015-16 School Year

Electives



- Students currently enrolled in a single period Regents-level math class will lose .5 elective period (20% of student body)
- Students currently enrolled in a lab math class (1.5 periods) and students not enrolled in Regents level math classes will have no change (76% of student body)
- Students currently enrolled in the Forward class (2 periods) will gain an additional .5 elective period (4% of student body)

Potential Impact of Changes

2015-16 School Year

- Staffing
 - Staffing was projected based on the following proposed changes:
 - Alternate day lab periods for all Regents level courses
 - Elimination of Algebra II Forward
 - Addition of Geometry Essentials to replace Intermediate Algebra and Algebra II Essentials to replace Algebra II Forward
 - Analysis indicates current staffing levels will be maintained



Questions ?