

# Algebra I Course Proposal 2024-2025

## JGMS Math

**Back:** Karen Burstein, Vanessa Mangini, Lindsey Goodhue

**Seated:** Sara Berinato, Vinnie McGrath, Liz Cowles, Jeff LoPresti



# Why:

- **Expand access** for more students to higher levels of Algebra I.
- **Strengthen the mathematics foundation** for student transition to BHS.
- **Align the JGMS math course structure** with the prior decision to phase out Continuing Math courses at BHS.

## **We propose to:**

- **Combine** Algebra IA and Algebra I classes **and** provide expanded math support taught by student's math teacher, if needed.
- Offer **two** advanced Algebra classes, one on each team.

## **We will do this by adding:**

- **Double** the number of advanced Algebra sections—now called Algebra Extended.
- **Double** the number of Calculus Project Support classes taught by 8th grade math teachers.

# Brief History

2022-  
2023

**Year 1: Math Curriculum Committee:** drafted vision statement, K-12 Foundational skills documenting, discussed levels and course offerings, discussed 6th advanced program, conducted community survey.

2023-  
2024

**Year 2: Math Curriculum Committee:** 8th grade teachers asked for consideration of Algebra I course changes.

- Math department grades 6-12 department discussed 6th advanced and Algebra I multiple times in department meetings
- looked at longitudinal data
- met with principals and leadership team.

## Course Descriptions

	<b>Algebra IA</b>	<b>Algebra I</b>	<b>Advanced Algebra Algebra Extended</b>
Level	above grade-level course		
Curriculum	Covers most, and not all, of the Algebra I curriculum.	Standard Algebra I curriculum	Standard Algebra I curriculum with extensions throughout due to faster pace.
MCAS % Meeting/ Exceeding	≈55-60%	96-99%	99%+
Transition to BHS	Repeat Algebra I Geometry Honors	Geometry Honors Some Geometry HH	Geometry High Honors

## 2023-2024

### Green Team

8th Grade Math

8th Grade Math

Algebra IA

Algebra I

Algebra I

Academically Advanced Algebra  
One section only.

Calc Project Support  
3 sections

### Red Team

8th Grade Math

8th Grade Math

Algebra IA

Algebra IA

Algebra I

## 2024-2025

### Green Team

8th Grade Math

8th Grade Math

Algebra I

Algebra I

Algebra I  
Extended

Calculus Project  
(3 sections)

### Red Team

8th Grade Math

8th Grade Math

Algebra I

Algebra I

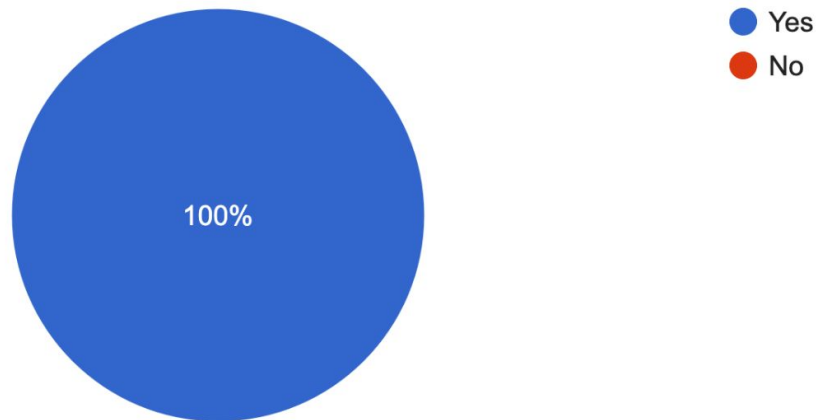
Algebra I  
Extended

Calculus Project  
(3 sections)

# What do the BPS math teachers think of this teacher-driven proposal?

Do you support the spirit of Vanessa and Sara's recommendation to offer 2 courses of Algebra I in 8th grade instead of the current 3 Algebra I courses?

18 responses



**BHS and JGMS Math teachers are in agreement.**

## Rationale with teacher quotes in red.

- **Expand to two (2) advanced sections** on each team.
  - “Allowing for better access to higher-level math classes.”
- Ensure students have **strong foundation in Algebra** for transition to BHS. Transition can be stressful for some and stronger Algebra skills will improve students’ confidence in math.
  - “Make transition to high school more seamless.”



## Rationale with teacher quotes in red.

- **Continuing Math program** at BHS phased out, ending this year. Students in Algebra 1A not ready for Geometry often took this class.
  - “Since Continuing is gone, Algebra 1A doesn’t have a natural continuation.”
- Students who are consistently below grade level in math (partially meeting expectations on MCAS/STAR) will be recommended for 8th grade math.

## Rationale with teacher quotes in red.

- **2x amount of sections** of Calculus Project to ensure students will have the resources to be successful in Algebra I.
  - “Gives more math to more kids to keep them on the Calculus path.”
- Math Support taught by student’s math teacher.
  - “I love the idea of the math teachers having their own students in their support class.”

## “Cannot hold students back...”

- Vast majority of students previously recommended for Algebra IA will have access to take Algebra I, with additional support if needed.

8th Grade Algebra IA and Senior Year Math Course					
YOG 2025 (Current Juniors) 44 Students			YOG 2024 (Current Seniors) 47 Students		
AP Calculus BC	1	2.3%	AP Calculus BC	1	2.1%
AP Calculus AB	14	31.8%	AP Calculus AB	27	57.4%
Calculus	11	25.0%	Calculus	0	0.0%
AP Stats	6	13.6%	AP Stats	3	6.4%
Statistics & Probability	6	13.6%	Statistics & Probability	5	10.6%
Precalculus	2	4.5%	Precalculus	0	0.0%
Business Math	4	9.1%	Business Math	11	23.4%
59% in Calculus			60% in Calculus		
91% Advanced coursework completion (Calculus, Statistics, Precalculus) DESE Accountability data point			77% Advanced coursework completion (Calc, Stats, Precalculus) DESE Accountability data point		

**Overrides: Ultimately parents and caregivers can override any recommendation.** We are removing barriers to higher level course.

- Student demand will drive our schedule. If there is demand for 3 sections of Algebra I Extended we need to meet this demand.

**Calculus Project schedule Impact:**

- Support class will continue to allow options for student to take art or music elective.

## **Next Year in Math Department:**

- Beginning of unit template process documenting the curriculum in 2024-2025.
  - Coordinated sharing of extension and challenge resources.
- Both 8th grade teachers have taken district offered differentiation courses.

## **Next Steps:**

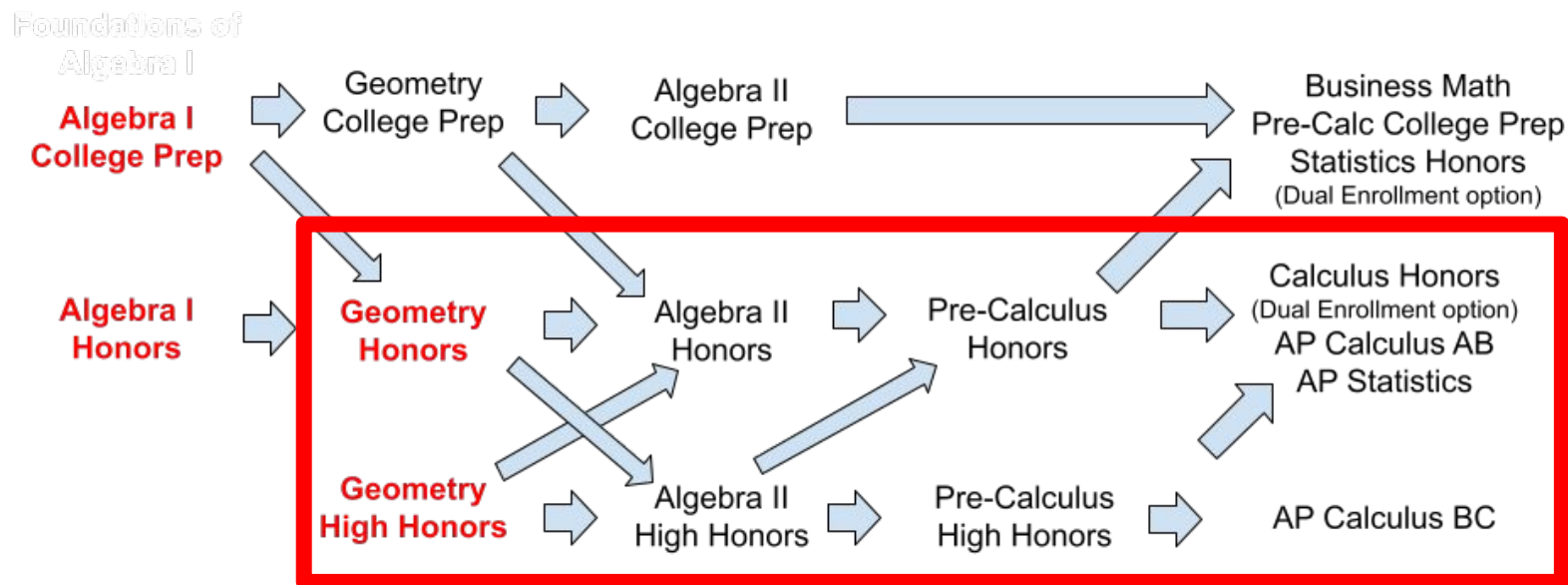
### **Family Communication & Recommendation Process:**

- Teachers plan to inform students and families of these changes as a part of our recommendation process, including being explicit about schedule impacts of support class.

### **Data will guide us:**

- We will track student progress using grades, Star Math results, MCAS results, teacher, student and parent feedback, enrollment data (i.e. if students remain in class the entire year).

# Bedford High School Math Progressions



Ninth graders will be recommended by their teachers for the most appropriate course and level, and this chart shows typical course progressions for the next four years. Choices in **red** signify courses taken by 9th graders. Any 9th grader beginning in Geometry has successfully completed a full-year Algebra I course in middle school.

# Peer Districts

Town	# courses	# Algebra Courses	Detail
Bedford	4	3	8th Grade Math, Algebra IA, Algebra I, Algebra I Academically Advanced
Sudbury	4	3	8th grade Math, Algebra I Comprehensive, Algebra I Extensive, Number Theory
Wayland	3	2	Accelerated Algebra I, Algebra I (teaching 8th grade standards), Level II Algebra with Math Boost (8th grade standards)
Billerica	3	2	Pre-Algebra, CP Algebra I, Honors Algebra 1
Lynnfield	2	1	HONORS MATH – GRADE 8, MATH – GRADE 8
Belmont	2	1	Math 8, Algebra I
Burlington	2	1	Grade 8 Accelerated Math, Grade 8 Math
Concord	2	1	8th grade Algebra 1, 8th grade Basic Algebra
Lexington	2	1	Mathematics 8, Mathematics 8 Honors.
Lincoln	2	1	Math 8, Algebra
Carlisle	1	0	Math 8



## **Vision Statement:**

In Bedford, we believe students of math are capable of becoming independent thinkers and life-long problem solvers.

Each student will be supported and challenged through engaging and collaborative learning experiences that are equitable and accessible.