

Secondary Course of Study

Laguna Beach Unified School District

Board Presentation
July 18, 2017

LBUSD Goals

- Ensure that all students have deep understanding of concepts and can apply them to real world situations
- Design pathways that ensure all students engage in rigorous coursework leading to high levels of math
- Align courses and assessments to CAASPP, Early Assessment Program (EAP), SAT, ACT, and AP
- Ensure that our students are competitive and college and career ready

LBUSD Curriculum Council

The Curriculum Council process allows each school the ability to present for approval curriculum recommendations to reflect the immediate needs of the students in the community served. Stakeholder representatives include parents, teachers, counselors and administrators. This information is shared through department groups and School Site Councils.

This change, however, is necessary without prior Curriculum Council approval for the following reasons:

- There are several 8th grade students that will be taking Geometry at Laguna Beach High School next year. We believe that it is not in the best interest of these students to be placed in classes with 10th and 11th graders because of the large age difference.
- These 8th grade students have been rapidly accelerating all through middle school and would benefit from continued acceleration.
- When creating the math pathways, it was priority to assure that we meet the needs of all students, and we believe that this option will meet the needs of this unique group of high achieving middle school math students, as well as provide opportunities for our high achieving high school students to benefit from an accelerated curriculum.
- The Accelerated Geometry course will better prepare students to be successful in advanced math courses, such as AP Calculus AB and BC.

Rationale for Accelerated Geometry Course

- Provide enrichment and deeper coverage of standards for accelerated students
- Provide pathway for students wanting to take additional advanced math course
- Incorporate some Algebra/Algebra II standards for students that want to take Algebra II Honors
- Provide a more rigorous option for Geometry

Geometry (College Prep)

Grades

- Assignments = 5%
- Problem Solving (Performance Tasks and Team Tests) = 10%
- Open-Note Quizzes = 20%
- Individual Tests = 50%
- Final = 15%

Standards and Current Curriculum Using the “Big Ideas Math – Geometry”

Accelerated Geometry

Grades

- Assignments and Performance Tasks = 15%
- Quizzes = 15%
- Individual Tests = 50%
- Final = 20%

Additional Curriculum

- challenging problems
- more in-depth proofs
- rigorous coordinate geometry proofs
- using perpendicular bisectors and angle bisectors to find measures and distance relationships

Algebra

- Quadratic Formula
- Converting to Standard Form
- Completing the Square

New Algebra 2 Material

Approximately 6 weeks of Alg II Material
(CC Standard HSF-IF.C7)

- Parabolas written in Conic Form
- State the focus, directrix, and focal diameter

Trigonometry

- introduction to the unit circle
- using all 6 trig functions (not just 3)
- using both radians and degrees (CCSS: HSF-TF.A.1 and HSF-TF.A.2)

Algebra

Quadratic Formula

Converting to Standard Form

Completing the Square

Geometry

All CA State Geometry Standards

Deeper geometry proofs

Perpendicular and angular bisectors to find measures and distance relationships

Honors Algebra II

Parabolas written in conic form

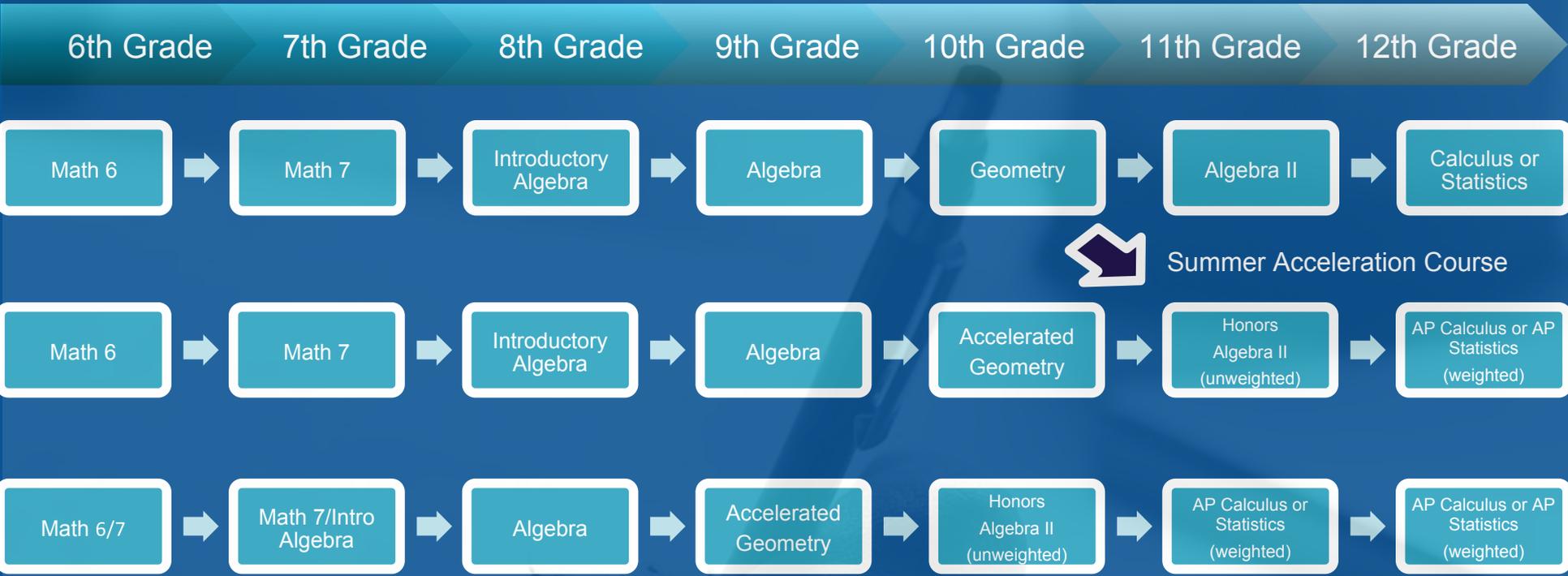
Focus, Directrix, and Focal Diameter

Introduction to the unit circle, using all 6 trig functions (not just 3), using both radians and degrees (CCSS: HSF-TF.A.1 and HSF-TF.A.2)

Accelerated Geometry

The second in a sequence of mathematics courses (Algebra I, Accelerated Geometry, and Honors Algebra II) designed to prepare students to take AB and/or BC Advanced Placement Calculus. It includes right triangle trigonometry; exponential, logarithmic, and higher degree polynomial functions; matrices; linear programming; vertex-edge graphs; conic sections; planes and spheres; Quadratic formula; completing the square; population means, standard deviations, and normal distributions. Students will develop the ability to construct formal logical arguments and proofs in a geometric setting. Instruction and assessment includes the appropriate use of manipulatives and technology. Topics are represented in multiple ways, such as concrete/pictorial, verbal/written, numeric/data-based, graphical, and symbolic methods.

LBUSD Secondary Math Pathways



Accelerated Pathways are for students who have shown mastery of the CA State Standards and have advanced mathematical maturity.

Placement is based on a comprehensive set of criteria.

Meeting ALL Students' Needs

- We will work on an individual basis to create alternative solutions to meet ALL student's individual needs if they are not specifically met within our current pathways.
- We will continually review individual and group data to determine the best possible pathways as we continue to refine and implement the CA State Standards.



THANK YOU!

Any questions?