

The vision of the **High School Math Alignment Project** is to strengthen the mathematical capacity of Oregon students while concurrently providing more options for students to pursue mathematics content that aligns closely with their learning and career goals.

While the goal is broad, there is a specific route to that goal which has been informally vetted with many stakeholders. Discussion of this “2+1 Model” within the context of postsecondary needs is the starting point for the Oregon Math Alignment Project.

Objectives:

1. Identify, refine and disseminate best pedagogical resources and practices across 9-14 classrooms, to promote student actions needed for citizenship, certificates, college and career readiness.
 - a. Identify leading work within Oregon and nationally which are based on 21st century learning outcomes. Foster a community which can bring understanding of those outcomes to all practitioners.
 - b. Find and/or develop models so that those best approaches and resources can be refined and made available statewide.
 - c. Create a network to support shifts in pedagogical approach, such as those advocated by the National Council of Teachers of Mathematics, the American Mathematical Association of Two-Year Colleges and the Mathematical Association of America.
2. Explicitly identify the two years of content expectations for all students to engage in after an 8th grade mathematics course.
 - a. Articulate the first two years of content expectations with significant algebra content, and a balance of geometry & statistics.
 - b. Clearly articulate major, supporting, and additional content within the high school content standards, giving sample formative and summative assessment items which exhibit the desired level of rigor.
 - c. Promote emphasis on explicitly engaging in the mathematical modeling process and utilizing technology appropriate to solve authentic application problems.
3. Develop a framework for 3rd credit options to guide school and district staff in the development of courses beyond the first two credits of mathematics.
 - a. Develop math pathways options that align to specific learning and career needs, such as computer science, construction, healthcare, and social science industries.
 - b. Review and revise existing third and fourth credit options that prepare students to enroll in calculus courses.
 - c. Develop third credit options to further develop and master content found in the first two credits of high school math. Such options could include courses such as mathematical modeling and financial algebra.
 - d. Develop courses that could be used as a 12th bridge for students who still need support in preparing for credit bearing content after completion of 3 credits of high school math.
4. Align high school math pathways to entry level college options for students
 - a. Align first two years of content and practice expectations to prepare students to enroll in credit bearing college level math courses, such as Math 105 (math in society) or Math 111 (college algebra) after high school.
 - b. Align third and fourth year content to prepare students to enroll in a variety of course options in their first year of post-secondary study, such as:
 - i. College calculus (including versions for social scientists, life scientists or engineers), discrete mathematics, or statistics in their first year of college study.
 - ii. Educational programs for technical careers.