

BRIDGE TO COLLEGE MATHEMATICS

Course Overview

Bridge to College Mathematics Course is a year-long course designed to prepare students for entrance into post- secondary credit bearing courses. The course addresses key learning standards for high school including Algebra I, statistics, geometry, and Algebra II standards essential for college- and career-readiness.

Description

The course curriculum emphasizes modeling with mathematics and the Standards for Mathematical Practice found within Washington K-12 Mathematics Learning Standards (the Common Core State Standards, CCSS-M). Topics include building and interpreting functions (linear, quadratic & exponential), writing, solving and reasoning with equations and inequalities, and summarizing, representing, and interpreting data. The course is designed to focus on building conceptual understanding, reasoning and mathematical skills and provides students engaging mathematics that builds flexible thinking and a growth mindset.

Course Content and Approach

The Bridge to College Mathematics course focuses on the key readiness standards based on Washington State's K-12 Learning Standards for mathematics (the Common Core State Standards, CCSS-M) as well as the eight Standards for Mathematical Practices needed for students to be ready to undertake postsecondary academic or career preparation in non-STEM fields or majors. The course addresses standards throughout high school and even earlier, including Algebra I, statistics and geometry, and the Algebra II standards agreed to as essential college- and career-readiness standards for most students.

While this course covers the basics in math practices and reviews the procedural steps needed to be successful in math, the course design emphasizes engaging instruction based heavily on conceptual teaching and learning. Each unit includes a "hook" at the beginning to engage students and pre-assess prior math experiences and understandings. The hook is followed by several days of tasks that delve deeply into math found in the Standards for Mathematical Practice and the lead headers of the Common Core—focus, coherence and rigor. Each unit also includes a formative assessment lesson at iust over the two-thirds mark, allowing the teacher to adapt instruction and learning during the remaining one-third of the unit. The curriculum is grounded in the Southern Regional Education Board's (SREB) Math Ready course (http://www.sreb.org/page/1684/math_ready.htm).

Units of Study:

- I. Algebraic Expressions
- 2. Equations
- 3. Measurement, Proportional Reasoning, and Trigonometry
- 4. Linear Functions

- 5. Linear Systems of Equations
- 6. Quadratic Functions
- 7. Exponential Functions & Introduction to Logarithms
- 8. Summarizing and Interpreting Statistical Data

Recommended Priority for Student Enrollment

The Bridge to College Mathematics Course is a math course designed for seniors who scored at Level 2 on the Smarter Balanced 11th grade assessment and for:

- Seniors who have taken Algebra 2 and would benefit from additional math intervention.
- Seniors who are recommended by high school instructors based on other factors such as readiness and their high school and beyond plans.

Important Notes

- 1. The Bridge to College Mathematics course *can qualify* as a 3rd *credit of math* if the student has already attempted Algebra 2 or is credit-deficient.
- 2. Currently, the Bridge to College Mathematics Course does not qualify for NCAA or for a COE course. However, we are continuing to pursue both of these options and intend to have guidance on both by the end of May 2015.
- 3. Beginning in fall 2016, seniors who completed the Bridge course with a B grade or better **and** scored at Level 2 on the Smarter Balanced 11th grade assessment, will be considered college-ready by participating higher education institutions in Washington and permitted to enroll in an entry college-level math course (excluding precalculus) with no remediation or additional placement testing required.
- 4. To meet the minimum admissions requirements for state baccalaureate institutions, students need to pass Algebra 2 for their 3rd credit of math. The Bridge to College Mathematics Course does meet the baccalaureate senior year requirement for a math or quantitative reasoning course as determined by the Washington Student Achievement Council (College Academic Distribution Requirements (CADR), 2014).

Accessing the Materials

Teachers and administrators who are interested in the Bridge to College Math course can access it on the Washington Mathematics Assessment and Placement (WAMAP) web platform (http://www.wamap.org). Register as a student in WAMAP and then use the Course ID: 10465 and Enrollment Key: math. Schools are encouraged to try using lessons and activities from the materials in other courses.

Questions

Bridge to College Initiative website

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