

**88-29-15. Content requirements for qualified admission mathematics courses.**

Each qualified admission mathematics course shall meet all of the following requirements:

(a) The course shall be classified as a mathematics course in the course description.

(b) If the course is offered for high school credit only, the course shall be taught by an instructor who is licensed to teach mathematics at the secondary level.

(c) The course shall emphasize the following skills:

(1) Algebraic and geometric thought;

(2) mathematical reasoning in the context of real-world problem solving;

(3) communicating about mathematics; and

(4) using technology in mathematical contexts.

(d) The course shall meet the criteria for one of the following:

(1) A qualified admission algebra I course, which shall include instruction in the following topics:

(A) Linear equations and functions, including both symbolic and graphic representations;

(B) data analysis, including linear regression for a data set;

(C) solution of linear equations and inequalities, both singularly and in systems, with sufficient emphasis to produce proficiency;

(D) properties of positive and negative real numbers, with sufficient emphasis to produce proficiency;

(E) absolute value;

(F) exponents and radicals;

(G) factoring patterns;

(H) solutions of quadratic equations; and

(I) additional topics upon approval of the chief executive officer of the board of regents or the chief executive officer's designee;

(2) a qualified admission algebra II course, which shall meet the following requirements:

(A) Enrollment in the course shall be limited to students who have successfully completed qualified admission algebra I and qualified admission geometry; and

(B) the course shall include instruction in the following topics:

(i) Linear functions and equations;

(ii) the solution of quadratic equations by a variety of methods with sufficient emphasis to produce proficiency;

(iii) exponential and logarithmic equations and functions;

(iv) manipulation of algebraic fractions;

(v) connections between symbolic, numeric, and graphical representations;

(vi) the use of matrices to solve systems of equations and to organize and analyze data;

(vii) fundamentals of probability and combinatorics; and

(viii) additional topics upon approval of the chief executive officer of the board of regents or the chief executive officer's designee;

(3) a qualified admission geometry course, which shall meet the following requirements:

(A) Enrollment in the course shall be restricted to students who have successfully completed algebra I; and

(B) the course shall include instruction in the following topics:

(i) Euclidean, transformational, and coordinate geometry;

(ii) the Pythagorean theorem and distance formula, with sufficient emphasis to produce proficiency;

(iii) properties of polygons, circles, and three-dimensional figures, including prisms, cylinders, and cones;

(iv) measurement concepts related to perimeter, area, and volume;

(v) the use of similarity and congruence in solving problems and as tools in developing proofs and constructions;

(vi) development of mathematical reasoning, including several approaches to proof, with sufficient emphasis to produce proficiency; and

(vii) additional topics upon approval of the chief executive officer of the board of regents or the chief executive officer's designee; or

(4) any mathematics course for which enrollment is restricted to students who have successfully completed qualified admission algebra II.

This regulation shall have no force and effect on and after June 1, 2021. (Authorized by and implementing K.S.A. 76-717; effective Aug. 1, 2007; amended Oct. 16, 2020.)