ATTACHMENT NO. X-D(b):   Course Proposal – Honors Algebra I

Potential Motion: Approve Honors Algebra I for the 2023-2024 school
                          year

Recommended Action: Approve as presented

The purpose of this course is for students with a high interest in mathematics but have not been accelerated chronologically to begin their high school math experience with peers who possess a similar mindset. Students will be recommended for this course by their 8th grade math teachers. Course grades and performance on standardized tests will also be considered. The administration recommends the approval of this course and its inclusion in the 2023-2024 NBHS Course Guide.

COURSE PROPOSAL - NORTH BOONE CUSD 200

Proposed Course Name: **Honors Algebra I**

Old Course Name (if applicable): **NA**

Submitted By: **Sean Smart**

Implementation Date: **Fall 2023**

Length of Course: **One year (two semesters)**

Open to which grade levels: **Students that have met the prerequisites**

Prerequisites: **Recommendation from MS math department.**
Students need recommendations from their 8th grade math teacher.
Guidelines for recommendation include:
Must receive a high A; that is, 95% or higher in math 8   AND
Display a strong work ethic that is needed at the honors level   AND
Curiosity and interest in mathematics

Pass/Fail Option: **No**

Credit:

If the course meets a graduation requirement, which one does meet? **1 year HS Math**

Where does this course fit into the department sequence? **Before Geometry, and successful completion will lead to a student going to honors geometry.**

What is the potential impact of this course on the other department offerings? **It will not impact offerings. That said, it could complicate logistics. It will lower algebra 1 enrollment numbers. Currently we have three algebra 1 sections. We would either still have three classes with an additional section of honors algebra 1. OR, we would cut down to two sections of algebra 1 and have one section of honors algebra 1. This would be ideal in that it would keep the amount of classes the same, but could lead to large class size numbers in the algebra 1 sections.**

Course Description: **Algebra 1 but with more advanced applications, higher rigor, a faster pace, and problem-solving and higher-order thinking that prepares students for the rigor and cognitive complexity of higher level mathematics, honors geometry, and gives better preparation for the RVC placement exam.**

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COURSE PROPOSAL - NORTH BOONE CUSD 200

Special Notes (i.e., extended periods, team teaching, etc.): **N/A**

RATIONALE, OBJECTIVES, STRATEGIES

1. Course Rationale

A) What is the evidence of student need for this course? **What student data shows that students are interested in this course? There is no opportunity for on-track students (that is, freshmen who are to take algebra 1) to be challenged at the honors level. It is only possible to jump into honors level math for students who are one year ahead (that is, freshmen who are to take geometry). The on-track, yet high achieving students miss out on an opportunity to get the rigor and cognitive demand of an honors course. They need to be challenged in ways that even differentiation of a regular course would not satisfy. An honors course allows students to delve much deeper into algebraic topics and challenge them. The pace is more appropriate for them, too.**

B) What departmental needs/goals would this course meet? **Filling an honors, on-grade-level math class. That is, we would have an honors algebra 1 for freshmen. This motivates 8th graders who are on grade level but want to be challenged or move into honors math to do well in math 8 and get the recommendation for honors algebra 1 as opposed to just algebra 1.**

C) What institutional needs/goals would this course meet? **The same as Algebra 1 but with more rigor and depth.**

2. Course Priority Standards: List 5-6 standards that will be the focus of the curriculum. These standards are priorities because they meet the following criteria:
   - Have leverage across content areas
   - Have endurance
   - Are assessed
   - Show readiness for the next grade level course

A.REI.10 Represent and solve equations and inequalities graphically
F.IF.6 Interpret functions that arise in applications in terms of a context
A.CED.1 Create equations that describe numbers or relationships
A.SSE.1b Interpret the structure of expressions
A.APR.1 Perform arithmetic operations on polynomials

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3. List the main topics to be taught.
   Integers and Rational Numbers
   Equations
   Inequalities
   Exponents and Polynomials
   Polynomials and Factoring
   Graphs and Linear Equations
   Systems of Equations
   Inequalities and Absolute Value
   Radical Expressions and Simplifying
   Quadratic Equations

4. What types of student assessment procedures will be used? **How will the assessment be used to guide instruction?** Standard written assessments and performative assessments will be used. Written assessment procedures will be similar to regular algebra 1. The assessment will be used to guide instruction.

5. List resources needed and approximate costs to implement this course. Include staff development, materials, textbooks, additional staff, equipment, technology resources, facilities, and fees. Enrichment materials and activities through third party sources and vetted by the mathematics department and Kari Neri will be necessary.

Include any additional information pertinent to your course. It is important that we work with the middle school math teachers if this course moves forward, and work on vertical alignment.

Signatures: Form must be signed before it can be presented to the Curriculum, Instruction, and Assessment Committee.

Building Principal: *Marc Eckmann* Date: 11-9-2022

Curriculum Director: _____ Date: 11-9-22

Superintendent: _____ Date: 11/9/22

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