Early College High School @ Delaware State dream BIG dreams University

CSAC Initial Report Response

- 1. Copy of the revised Memorandum of Understanding with Delaware State University Document Attached
- 2. Curriculum (Math)
 - a. Provide documentation of how Delaware statistics standards are addressed within the ECHS core mathematics curriculum
 - b. Provide documentation of the pathway students take that ensures they complete all high school mathematics course requirements when they begin high school with pre-algebra

During the 2014-15, 2015-16, and 2016-17 school years, the ECHS PSAT and SAT data, as well as college course data yielded that there needed to be a change in the way mathematics was delivered to students. During those years, students took Integrated Math I, II, and III. Course Descriptions below illustrate that statistics standards were clearly addressed. ECHS' current 11th and 12th graders have taken all three of the integrated math courses and have had statistics.

<u>Integrated Math 1</u> is designed to combine some of the basic principles of Algebra, Geometry, and Statistics. Students will deepen and extend their understanding of linear relationships and be introduced to exponential functions, modeled through data. Students will use properties and theorems involving congruent figures to expand and broaden understanding of geometric knowledge. Students will experience mathematics as a coherent, useful, and logical subject that draws on their ability to make sense of problem situations, and will develop the ability to explore and solve mathematical problems, think critically, work cooperatively with other students and communicate mathematical ideas clearly.

<u>Integrated Math 2</u> is designed to combine some of the intermediate principles of Algebra I, Geometry, Algebra 2 and Probability. Topics include Quadratic Functions, Similarity and Congruence, Circles, Basic Trigonometric Functions and Probability. The Common Core Standards for Mathematical Practices will be addressed throughout the course.

<u>Integrated Math 3</u> completes the three-course sequence of Integrated Mathematics and is designed to further explore the principles introduced in Math 1 and Math 2 in preparation for

enrolling in advanced mathematics courses. This course brings together knowledge acquired in the previous two courses and uses it as a bridge to expand into more complex territory. Students will expand their knowledge of linear, exponential, and quadratic functions to polynomials, rationals, and trigonometric functions. Students will also extend their previous work with circles to other conic sections, their understanding of trigonometry to all triangles, and experiences with data as they solve sophisticated problems. Students will experience mathematics as a coherent, useful, and logical subject that draws their ability to make sense of problem situations, and will develop the ability to explore and solve mathematical problems, think critically, and work cooperatively with other students and communicate mathematical ideas clearly.

As of the start of the 2017-18 school year, ECHS had changed its curriculum for more traditional math courses and hired an additional math teacher. The decision was made to change to allow for more math courses during the year to allow for more stability in mathematics. Not all students are able to begin in the same starting place. Looking at the incoming freshmen class' 7th and 8th grade math grades and courses as well as their high states testing scores, ECHS Administrators were able to place students in high school courses that appealed to the students' skillsets.

With the change in the course sequencing, students at ECHS will take two high school math courses per year for both the 9th and 10th grade school years. This is also an option for students who are in the 11th and 12th grade school years. The chart below illustrates the math track students could potentially take. A student who begins with Pre-Algebra can still take all of the required math courses and still be able to take a college math course, but not until senior year. With having students take two math courses each year, the students will have a good foundation of high school math courses before having to take a college math course.

Grade 9 Semester 1	Grade 9 Semester 2	Grade 10 Semester 1	Grade 10 Semester 2	Grade 11 Semester 1	Grade 11 Semester 2	Grade 12 Semester 1	Grade 12 Semester 2
Pre- Algebra Or Algebra IA	Algebra or Algebra IB	Geometry	Algebra II	Statistics	Trig	Pre-Calc	College Math
Algebra	Geometry	Algebra II	Statistics	Trig	Pre-Calc	College Math Course	College Math
Geometry	Algebra II	Statistics	Trig	Pre-Calc	College Math Course	College Math Course	College Math Course
Algebra II	Statistics	Trig	Pre-Calc	College Math Course	College Math Course	College Math Course	College Math Course
Statistics	Trig	Pre-Calc	College Math Course	College Math Course	College Math Course	College Math Course	College Math Course

See the attached math curriculum