Course Name	Instructor	Instructor E-mail & Availability
Honors Core 1 (Core 2) 9th Grade	Condren	ccondren@aps.k12.co.us Plan - 1st and 7th

Class Meeting Times & Location:
Condren (HSA 12) - 4th

Course Description

The first course and the second course of a four year integrated math program will be merged. The first course emphasizes mathematical modeling and modeling concepts drawn from algebra and functions (linear and exponential models), from geometry (visualization and space shapes and their properties), and from statistics and probability (data analysis, sample spaces, and simulation methods). mathematical modeling and modeling concepts drawn from algebra and functions (quadratic functions) will be emphasized from the second course.

Mathematical Norms

Our focus for the year is to redefine math as a creative and collaborative area of study. This course will revolve around the following seven mathematical norms:

1. Everyone can learn math to the highest levels.
2. Math is about creativity and making sense.
3. Math is about connections and communicating.
4. Mistakes are valuable.
5. Math class is about learning, not performing.
6. Questions are really important.
7. Depth is more important than speed.

Learning Outcomes by Quarter

Quarter 1

1. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of quantities, and sketch graphs showing key features given a verbal description of the relationship
- *Linear, Expenential*

2. Calculate and interpret the average rate of change of a function over a specified interval. Estimate the rate of change from a graph.

3. Construct linear, exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs and solve problems

4. Use graphs and tables to describe that a quantity increasing exponentially eventually exceeds a quantity increasing linearly

Quarter 2

5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems

6. Use coordinates and the distance formula to compute perimeters of polygons and areas of triangles and rectangles

7. Solve systems of linear equations exactly and approximately, focusing on pairs of linear equations in two variables

8. Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately

Quarter 3

Enrichemnt Project
Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers)

9. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of quantities, and sketch graphs showing key features given a verbal description of the relationship
- *Quadratic (introduce)*

10. Interpret functions that arise in applications in terms of a context
- *Linear, Expenential, Quadratic*

<mark>*(Core 2)*</mark>

11. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent

Quarter 4

Enrichment Project
Represent data on two quantitative variables on a scatter plot, and describe how the variables are related
Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear and exponential models.

12. Construct and compare linear, quadratic, and exponential models and solve problems
==*(Core 2)*==

13. Write expressions in equivalent forms to solve problems (Quadratic and exponential)
==*(Core 2)*==

14. Solve equations and inequalities in one variable (Quadratics with real coefficients)
==*(Core 2)*==

Required Supplies

Pencil
Graphing Notebook

Grading

Students will be graded on a 4 point scale for all assignments

Point	Letter Grade	Explanation
3.0-4.0	A	In addition to the performance score of 3.0, the student demonstrates in depth inferences and applications that extend beyond what was taught.
2.5-2.99	B	There are no major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught. This level is mastery
2.0-2.49	C	There are no major errors or omissions regarding the simpler details and processes, but there are major errors or omissions regarding the more complex ideas and processes.
1.0-1.99	D	With help, the student demonstrates a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.
Below 1.0 or No Evidence	F	Even with help, the student cannot demonstrate understanding of the simple details.

School Policies

REQUESTS FOR HOMEWORK
Students requiring homework assignments due to extended excused absences (three days or more) should initially contact the attendance office. The attendance office will notify teachers and collect assignments from individual teachers. Assignments should be ready for pick up 24 hours after a request has been made. Please call the attendance office to check homework status.

MAKE-UP WORK DURING ABSENCES
Any time a student misses a class for any reason whatsoever, that student will be expected to contact each teacher and complete the make-up work in order to achieve the learning objective. This includes field trips, school activities, suspensions, group sessions, truancies, and the like. Make-up work is required and students who have been absent from class must request make-up work from the teacher no later than the next class meeting. Teachers will determine a reasonable amount of time for make-up work when students are absent, using a two days for every one day absent guideline.

Teachers may provide an "alternative" learning experience for make-up work to any student who requests it upon returning to class. For example, a student may have been absent from a class at which the daily learning objective was achieved by means of a class discussion. At the teacher's sole discretion, students who were absent during that discussion might be assigned a two or three-page written essay due three or four days after the student's return to class as an 'alternative' learning experience for that objective.

Teachers will give academic credit to all make-up work that complies with the above guidelines. The only exception is that teachers have the choice whether or not to give academic credit to the make-up work from an unexcused absence. If the absence was unexcused, the teacher should provide feedback but is not required to give credit for the work.

TARDY POLICY
After three tardies teachers will conference with the student and contact home. After 5 tardies students can be referred to the Learning Center and additional consequences may be assigned.

PASSES
Students who leave the classroom or are excused from class must have a pass with correct validation by the teacher. School officials may send for a student using an authorized Administrative Pass. Students who are without official passes will be subject to disciplinary action. Passes will not be given in the first 10 minutes or last 10 minutes of class.

NON-ACADEMIC TECHNOLOGICAL DEVICES
Aurora Public Schools believes in providing environments that optimize learning and teaching and are safe, secure, and well maintained. As such, all personal electronic devices* shall not be seen nor heard during the school day in academic areas of the building from 7:30 A.M. to 3:45 P.M. *Cell phones, iPods, headphones, portable speakers, MP3s, tablets, cameras, etc. **Aurora Central High School is not responsible for lost, stolen or damaged electronic devices.** This includes electronic devices that are confiscated by staff. Aurora Central High School reserves the right to not investigate lost, stolen or damaged electronic devices.

Classroom Norms

TBD in class by students by 8-18

Tear off and return THIS PAGE only and return to _____(teacher).

I have carefully read the expectations of this course and agree to support the goals and initiatives of the course. I will show up, speak up, stand up and go further than I ever thought possible.

Student name: _____(print)

Grade _____ Period _____

Student Signature: _____

Parent/Guardian Name: _____

Aurora Central High School Core 1 Syllabus 2017-2018

Parent/Guardian Signature: _____

Parent/Guardian Phone Number: _____

Parent/Guardian Email: _____