



Course Name	Instructor	Instructor E-mail & Availability
Core 2 Integrated Mathematics	Hoffmann, Sam	SDHOFFMANN@aps.k12.co.us
Course Website (Google Classroom Access Codes)	Class Meeting Times & Location:	Prerequisites
2nd Period: 3rd Period: 4th Period: 5th Period:	2nd Period: (MTW) 8:40-9:35, (F) 8:10-9:35 3rd Period: (MTW) 9:40-10:35, (Th) 10:10-11:35 4th Period: (MTW) 10:40-11:35, (F) 9:40-11:05 5th Period: (MTW) 12:20-1:1	Core 1 Integrated Mathematics

Course Description

Core 2 is an integrated math class that consists of Algebra, Geometry, Probability, and Statistics concepts. This class is geared for the 10th grade level if you are on track to graduate and go to college.

Standards

- (2.3a) Interpret the structure of expressions.
- (2.4a) Create equations that describe numbers or relationships.
- (2.1b) Interpret functions that arise in applications in terms of the context.
- (2.1c) Analyze functions using different representations.
- (2.4d) Solve systems of equations.
- (2.4c) Solve equations and inequalities in one variable.
- (4.2b) Prove theorems involving similarity.
- (4.2c) Define trigonometric ratios and solve problems involving right triangles.
- (4.4a) Explain volume formulas and use them to solve problems.
- (3.3a) Understand independence and conditional probability and use them to interpret data.

Learning Outcomes by Quarter

Quarter 1

1. Interpret expressions that represent a quantity in terms of its context.* **(A.SSE.A.1)**
 - A. Interpret parts of an expression, such as terms, factors, and coefficients.
2. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* **(F.IF.C.7)**
 - A. Graph linear and quadratic functions and show intercepts, maxima, and minima.
3. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. **(A.CED.A.2)**

Quarter 2

1. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. **(F.IF.B.6)**
2. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums.* **(F.IF.B.4)**
3. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. **(F.IF.C.8)**
 - A. Use the process of factoring and **completing the square** in a quadratic function to show zeros, **extreme values, and symmetry of the graph**, and interpret these in terms of a context.

Quarter 3

1. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). **(F.IF.C.9)**
 - A. For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.
2. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. **(A.REI.C.7)**
3. Solve quadratic equations in one variable. **(A.REI.B.4)**
 - A. Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation.

Quarter 4

1. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. **(G.SRT.B.5)**
2. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.* **(G.SRT.C.8)**
3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.* **(G.GMD.A.3)**
4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. **(S.CP.A.4)**
5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. **(S.CP.A.5)**

Required Supplies

A pencil and a notebook. Bring it to class every day, consistently to be prepared. A folder or binder to organize handouts is also highly encouraged.

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 Policies

NON-ACADEMIC TECHNOLOGICAL DEVICES

As outlined in the school-wide policies and expectations, Aurora Central High School is dedicated to maximizing learning in the classroom by minimizing unnecessary distractions. Therefore, all personal electronic devices (cell phones, iPods, headphones, portable speakers, tablets, cameras, etc.) should be kept away in your backpack or pockets. If a prohibited device is seen even once during instructional time, Mr. Hoffmann will be confiscating the device until the end of the school day. Students who continue to break this rule will have their devices confiscated and their parents will be required to communicate with the teacher about how to restore focus and improve learning. If the problem persists further, students will receive a behavioral referral and the disciplinary matter will be moved up the ladder to administration.

HOMEWORK AND PARTICIPATION

The majority of a student's grade is calculated from their formative assessments. However, homework and class participation will be factored into the final grade as well. Good scores on your homework and participation sections will be the key to a good grade in this class, and these are largely based on EFFORT.

Students will be given a handout every day in class. Students will complete and keep their daily work with them. At the end of each week, students will turn in ALL of their completed daily handouts for a participation grade.

In addition, students will be assigned 3-5 practice problems a week. Students will turn in their practice problems every Thursday or Friday, depending on their schedule. If a student misses the daily handout or homework assignment, they may collect the work from Mr. Hoffmann. The student then has up to two weeks to complete the work.

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: _____

Parent/Guardian Signature: _____

Parent/Guardian Phone Number: _____

Parent/Guardian Email: _____