Acc Geometry B/Alg II A
Fulton Virtual School

Course Description: Fulton County Schools implements the Georgia Standards of Excellence for mathematics. The Fulton County Schools Mathematics curriculum stresses rigorous concept development, presents realistic and relevant applications, and keeps a strong emphasis on computational skills. Engaging students in problem solving and real-world applications are important aspects of mathematics instruction. The use of technology and manipulatives support the conceptual development of mathematical concepts and skills. The Georgia Standards of Excellence for mathematics are organized into content standards and standards for mathematical practice.

Course Objectives: Accelerated Geometry B/Algebra II is the second in a sequence of mathematics courses designed to ensure that students are prepared to take higher—level mathematics courses during their high school career, including Advanced Placement Calculus AB, Advanced Placement Calculus BC, and Advanced Placement Statistics. The course represents a discrete study of algebra with correlated statistics applications. The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content; a student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

Unit Overviews:

Unit 1: Students will understand and apply theorems about circles, find arc lengths of circles, and find areas of sectors of circles. Students will develop and explain formulas related to circles and the volume of solid figures and use the formulas to solve problems. Building on standards from middle school, students will extend the study of identifying cross-sections of three-dimensional shapes to identifying three-dimensional objects generated by rotations of two-dimensional objects.

Unit 2: Students will use the concepts of distance, midpoint, and slope to verify algebraically geometric relationships of figures in the coordinate plane (triangles, quadrilaterals, and circles). Students will solve problems involving parallel and perpendicular lines, perimeters and areas of polygons, and the partitioning of a segment in a given ratio. Students will derive the equation of a circle and model real-world objects using geometric shapes and concepts.

Unit 3: Students will understand independence and conditional probability and use them to interpret data. Building on standards from middle school, students will formalize the rules of probability and use the rules to compute probabilities of compound events in a uniform probability model.

Unit 4: Students will revisit solving quadratic equations in this unit. Students learn that when quadratic equations do not have real solutions the number system must be extended so that solutions exist, analogous to the way in which extending the whole numbers to the negative numbers allows $x+1 = 0$ to have a solution. Students explore relationships between number systems: whole numbers, integers, rational numbers, real numbers, and complex numbers. Students will perform operations with complex numbers and solve quadratic equations with complex solutions. The guiding principle is that equations with no solutions in one number system may have solutions in a larger number system. Students will also extend the laws of exponents to rational exponents and use those properties to evaluate and simplify expressions containing rational exponents.

Unit 5: This unit develops the structural similarities between the system of polynomials and the system of integers. Students draw on analogies between polynomial arithmetic and base-ten computation, focusing on properties of operations, particularly the distributive property. Students connect multiplication of polynomials with multiplication of multi-digit integers, and division of polynomials with long division of integers. Students will find inverse functions and verify by composition that one function is the inverse of another function.

For a complete list of topics, visit the "Course Map" in the learning management system (Edgenuity).

Student Expectations: This course requires the same level of commitment from you as a traditional classroom course. Throughout the course, you are expected to spend approximately 2 - 3 hours per day on:

- Interactive lessons that include a mixture of instructional videos and tasks.

- Assignments in which you apply and extend learning.

- Assessments, including performance tasks, quizzes, tests, and cumulative exams.

Communication: Communication is extremely important to successful participation in an on-line course. Your teacher will communicate with you regularly through discussions, e-mail, chat, and personal visits. You should communicate with your teacher through email, text, or phone call.

Grading Policy: You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Quizzes	5%
Tests	35%
Projects	40%
Exam	20%

Fulton Virtual School Recovery Policy: Recovery is an additional opportunity for students to demonstrate mastery of content standards. If a student's cumulative course average falls below a 70, the student may be eligible for recovery. Students who successfully demonstrate mastery will not only improve their cumulative average but will be more prepared to succeed in the course. Students may initiate recovery on major assessments as long as they have made a legitimate effort to meet all course requirements including submitting work on time. So that

students stay focused on the content at hand and don't become overwhelmed and fall too far behind, they must initiate recovery on a major assessment within five school days of being informed of the grade on that assessment. To best prepare students for the recovery assignment and set them up for success, students will be required to complete all assignments for the unit (even if they do not receive credit). The format of the recovery assignment may be different from the format of the original assessment. After successful completion of the recovery assignment the final grade for the assignment will be the average of the original grade and the recovery grade to a maximum value of 70.

Fulton Virtual School Academic Integrity Policy: The next few pages include the Academic Integrity Policy for Fulton Virtual School. **You are expected to read, understand, and follow these guidelines throughout your time with Fulton Virtual School.**

Fulton Virtual School Academic Integrity Policy

In a virtual learning environment, honesty and integrity are integral traits for academic success. At Fulton Virtual, we believe that all students must show integrity in the completion and submission in all aspects of the academic experience. Therefore, no forms of cheating, assisting others in cheating, and/or plagiarism (passing off the work of others as if it is your own) will be tolerated.

When collaboration is necessary to complete tasks and projects, Fulton Virtual School instructors will provide students with advance notice. Thus, all work is considered an individual assignment unless otherwise noted.

The following list of dishonest behaviors has been compiled to assist you. This list is by no means exhaustive, and each infraction of academic dishonesty will be handled the virtual instructor on an individual, case-by-case basis.   Dishonest behavior includes, but is not limited to:

 1. **Plagiarism.** Plagiarism can be defined as the inclusion of another's ideas, words, expressions, or data in writing or presentation without properly acknowledging the source.

2. **Unauthorized use off another person's password/login.** Student logins/passwords are confidential information that should not be shared with others.

3. **Cheating.** Cheating can be defined as the act or attempted act of deception by which a student seeks to misrepresent his submitted work as uniquely his own completed without assistance. Cheating includes copying another student's work and submitting it as your own.

4. **Impersonation.** Performing work or taking an examination for another student or allowing someone to do so for you.

5. **Falsification and/or misrepresentation of data.** This can be defined as the submission of false or contrived data or sources.

6. **Computer crimes.** This may include damaging computer programs, hacking, constructing viruses, introducing viruses into a system, copying programs, etc.

Academic dishonesty will result in one or more of the following actions:

• Loss of grade points

• Removal from the course

• Failure to receive credit for the course

• Loss of eligibility to earn credits through Fulton Virtual Schools

Fulton Virtual School instructors have the authority to require that students perform other tasks or undergo additional assessments in proctored situations. If a Fulton Virtual School

instructor suspects that there is a problem with academic integrity, the administrators of both the local school and Fulton Virtual School will be informed. Failure to follow these guidelines may result in removal from your virtual course without further warning.

All Fulton Virtual Students Must Agree and Adhere to the Following Academic Integrity Guidelines:

• I understand and will support and will abide by the guidelines set for in the Fulton Virtual School Academic Integrity Policy.

• I will not personally cheat (i.e., use unauthorized materials in completing my assignments and assessments), and I will not help others cheat.

• If I become aware of anyone else's cheating or use of unauthorized materials (or any other violations of Fulton Virtual School's Academic Integrity Policy, I have a personal responsibility to report the matter to an instructor or administrator.

Avoiding Plagiarism

The following list of resources has been compiled to assist you in adhering to the Fulton Virtual School Academic Integrity Policy. This list is by no means exhausted, and students should conduct their own research regarding methods to avoid plagiarism whenever necessary.
Supplementary Resources

• Grammar Bytes! Presents: "Plagiarism: Avoid Academic Theft for Research Success" http://youtu.be/tUSaQ5-mDRI (YouTube)

• Interactive Plagiarism Tutorial https://plagiarism.duke.edu/ (Honor Council at Duke University)

• Episodes in Academic Integrity http://www.ryerson.ca/academicintegrity/episodes/index.html (Ryerson University)

Classroom Tips for a Successful Virtual Learning Experience

The following list of tips for success in a virtual learning environment has been provided by Fulton Virtual instructors. These are simply suggestions, and are not meant to be guidelines for each course. Upon registering for a new course, your virtual instructor will provide you with the methods they prefer to help you successfully complete their respective courses.

• Turn in all work on time. Late work is not accepted. If you have an emergency which prevents you from submitting your assignments on time, contact me immediately. Emergencies happen rarely.

• Don't procrastinate.

• Review your course schedule every day. For example, you may wish to place it beside your computer or on the refrigerator.

• Dedicate a specific time to work on your course. Treat it as part of your regular schedule.

• Participate fully in class discussions, where applicable. If you are an early bird, go back and read the posts made after your last entry. If you tend to procrastinate, remember that your posts may not be read if you enter them after the majority of your classmates have fulfilled their responsibilities for discussions. Also, if you are one of the last to enter your comments in a discussion, it is highly possible that no one will respond/react to your comments.

• Check off each assignment as you turn it in. In this way, you will know what you have completed and what you still need to complete.

• Be sure you keep a backup copy of EVERYTHING. When you submit your documents, label them with the unit and assignment.   • Check the Announcements section of daily.

• **Check your e-mail daily.** E-mails should have the subject line filled in with the appropriate assignment, or if a problem, appropriately titled so instructors can easily decide priority of which e-mail to handle first!!

• Be sure to properly identify yourself on all e-mails.

  • Make sure to submit your assignments correctly.   • Make sure to label your uploaded assignments with your first initial and last name, the unit, and assignment names. (Ex: S.Silveri_Gatsby_FinalEssay) If you are unsure whether an assignment properly posted, please contact the instructor.

 • Make sure to go through your course in order. Do NOT skip around. The course has been created so that you will learn the information in the correct order.