COURSE OVERVIEW

Functions and Statistics/ Trigonometry and Probability

TITLE OF COURSE	Functions and Statistics (1st Semester)/Trigonometry and Probability (2nd Semester)
TEACHER'S NAME	Mrs. Royston
COURSE INFORMATION	Hour: 3rd Room: 220 Duration: All year – one credit
TEACHER INFORMATION	Planning Hour: 4th Direct Phone No.: (810) 591-5436 E-mail Address: mroyston@carmanainsworth.org
PREREQUISITE(S)	Passing grade in Algebra, Geometry, and Algebra II and/or teacher recommendation.
COURSE DESCRIPTION AND OVERVIEW OF CONTENT /COURSE GOAL/ INTENDED OUTCOMES	This course covers a wide range of topics. Functions are correspondences that relate variables and have already been introduced in the form of linear, quadratic, exponential, polynomial, trigonometric and logarithmic models in previous courses. Statistics is used primarily by people who work in the fields of government, journalism, business, medicine, and social sciences. The ability of calculators and computers to store and analyze information has made statistics an increasingly important subject to learn. A thorough knowledge of both functions and trigonometry are needed for calculus, an area of mathematics that is fundamental in engineering and the physical sciences. This course material provides a strong mathematical foundation for those students who intend to further their study of mathematics at the college level. Topics/Chapters that will be learned. 1st Semester Functions and Statistics Chapter 1: Functions and Their Graphs Chapter 2: Polynomial and Rational Functions Appendix B Concepts in Statistics Equations of Circles Solving non-linear systems 2nd Semester Trigonometry and Probability Chapter 4: Trigonometric Functions Chapter 5: Analytic Trigonometry Chapter 6: Additional Topics in Trigonometry Probability Concepts
TEXTS AND/ OR OTHER MATERIALS	**Textbook** • Students will have access to both an actual and digital textbook along with a learning platform that goes with our new books. • Precalculus with Limits text by Larson and Battaglia. **Recommended Materials:** Materials are available in the classroom but should also be available at home for homework and practice. • Pencils/erasers, ruler, paper, graph paper • Only the Geometry classes need a protractor (clear with a ruler on the bottom is best).

	• **Calculator** We highly suggest that all students should have at least a NON-graphing calculator for their math class. A scientific calculator should be available for homework (make sure it has square roots and trig functions -- sin/cos/tan). There are several inexpensive models available (TI-30 or TI-34 – I prefer the ones with a two line display). I suggest the **TI-30X IIS**. Students can use these scientific calculators on the MME/SATs and it is good for them to start familiarizing themselves with the calculator they are going to use on those important tests. • If students are planning on taking calculus/college math and you/they want to make the investment to purchase a graphing calculator, we recommend the Texas Instrument TI-83, TI-83+, TI-84, or TI 84 plus. I have found that Statistics & Functions/Trigonometry & Probability students prefer the graphing calculators. • I give a lot of worksheets and handouts, so students may find it beneficial to have a **binder** (a 1 to 1-1/2 inch would do) to stay organized. There will be a hole punch in the room that they can use. At minimum students should have a dedicated **folder** for math class. **<u>Chromebooks</u> need to come to school every day charged. Bring your charger too.**
FORMAT AND ACTIVITIES	<u>Teacher will:</u> Lecture, lead whole class discussions, facilitate small and large group activities, provide assistance on class-work and administer appropriate assessments. <u>Students will:</u> Take notes, participate in individual and whole class activities including in-class projects and investigations and ask questions to clarify understanding of material. They should also be prepared to complete homework and study for quizzes and tests on a regular basis.
GRADING PRACTICES AND PROCEDURES	<u>Grades</u> • All graded assignments and assessments will be entered into synergy/StudentVue/ParentVue. • **Report cards** are issued 4 times during the year. The marking period will be approximately 9 weeks in length. Final grades are given at the end of each semester. Only final/semester grades appear on student transcripts and affect their GPA. **Report card grades should not be a surprise to students as they should be checking their grades weekly via StudentVUE.** <u>Grading Scale and Weights</u> Grades will be calculated using the following weights: <u>20%</u> <u>Practice, In Class and Out of Class Assignments including Homework</u> Assignments and activities will be given daily. Some assignments students will be able to finish in class while others will need to be taken home to be completed. Class notes will be taken almost daily. Your notes will consist of examples, explanations, activities and class work problems. Late assignments will receive late or partial credit. Be sure to put the <u>date, page numbers and problem numbers</u> at the top of each page of notes. ***You must stay organized to succeed in this class.*** <u>80%</u> Assessments including quizzes, tests, and projects.

	Grading Scale: A 100% - 93% A- 92% - 90% B+ 89% - 87% B 86% - 83% B- 82% - 80% C+ 79% - 77% C 76% - 73% C- 72% - 70% D+ 69% - 67% D 66% - 63% D- 62% - 60% E Below 60%
ATTENDANCE/ TARDINESS	Attendence REGULAR CLASS ATTENDANCE AND PARTICIPATION IS THE KEY TO LEARNING AND BEING SUCCESSFUL IN MATHEMATICS. ABSENCES • **For more details regarding the school's attendance policy please see the student handbook.** • In the event of an absence, missed assignments are the student's responsibility to make up. It is their responsibility to request makeup work. If you know of an anticipated absence let me know and I'll do my best to get you the work before you leave. • You are considered absent if you miss more than 10 minutes of a class. • Make-up for tests and quizzes is before or after school. It is YOUR responsibility to make arrangements with me the day you return to school. • For excused/exempt or school-related absences only, students are allowed the number of school days equivalent to the number of days absent plus one to complete makeup work. No extended time will be allowed for large assignments/projects with pre-established due dates without approval of the teacher. If a grade of "incomplete" is received on a report card, the student is expected to complete the work missed and have the "incomplete" removed within two weeks after report cards are issued. TARDIES • **For more details regarding the school's tardiness policy please see the student handbook.** • Tardies are an unnecessary disruption to the learning environment for the tardy student as well as the class. Tardies effect student performance negatively and can result in lost points.
CLASSROOM RULES AND PROCEDURES	ALL SCHOOL RULES FROM THE STUDENT HANDBOOK APPLY IN THIS CLASSROOM! • No food or drink is allowed in the classroom. They are to be consumed in the cafeteria only. • Cell Phones and Electronic Devices should be put away during class. • **For more details regarding the school's electronics policy please see the student handbook.**

	• Appropriate dress is required. STUDENT EXPECTATIONS • Come to class on time, well rested, and with the necessary materials • Complete in-class and out-of-class assignments to the best of your ability • Take an active learning role: ask questions, be attentive, be willing to try • Be a resource for your classmates • Be respectful and responsible CLASSROOM BEHAVIORS • Bring a pencil and book to class <u>every single day</u>. • Sharpen pencils before class begins. • Clean up work area <u>no earlier than five minutes</u> before the end of class. • Stay in your seat until the end of class. Lining up at the door is not permitted. HALL PASSES • Ask for permission first before entering your pass into MINGA. Although I'm not going to limit passes (at this time) I may deny a pass or suggest an alternative time for your errand. MAKEUP WORK o Missed assignments are YOUR responsibility. Students should first check google classroom as a summary is posted everyday of what happened in class. Students can also check with a classmate, email me, or message me via remind if they need something. If you know you're going to miss school, please ask me what you will be missing. If you are sick, you can request the work through the attendance office or students can email me directly to find out what they missed.
ACADEMIC INTEGRITY	Academic Integrity Academic Integrity requires high standards of personal achievement, ethical conduct, and academic honesty. It creates an academic environment in which a student's search for knowledge is a true and honest reflection of that effort. Violation of the Academic Integrity policy would consist of but not be limited to the following: Level I - Violation a. Falsely submitting work as one's own original creation. b. Facilitating another student falsely submitting work as their own original creation. c. Copying another students work and/or allowing another student to copy your work. d. Using any type of notes, technology, or other resources for assistance without prior teacher approval. e. Plagiarism. f. Using technology or other resources to complete work for you and presenting it as work you completed on your own. All Level I Academic Integrity violations will be addressed by the classroom teacher as outlined in their course syllabus. Level II – Violation Unauthorized possession, use, and/or theft of materials, answer sheets, teacher materials, computer files, grading programs, and/or altering teacher records. Level II violations of the Academic Integrity Policy will be addressed by the

	teacher and administrator possibly resulting in a suspension and/or failure of that class for the semester.
TESTING OUT	There is an option to test out. For more details, please see the student handbook or contact me for more details, procedures, and requirements. Testing Out details can be found in the Student Handbook.
TECHNOLOGY USAGE	**Calculators:** It is recommended that students have a scientific calculator available for homework (make sure it has square roots and sin/cos/tan). There are several inexpensive models available (TI-30 or TI-34). Students will have access to **TI-30XIIS** in class. Students are **not** allowed to take these calculators out of class. Geometry students do not need a graphing calculator, however if you are interested in purchasing one for this or future courses, we recommend the Texas Instruments (any of the TI-84s the ones in the classroom are the TI-84 Plus CE Python edition) graphing calculators. **Chromebooks need to come to school every day charged. Bring your charger too.** **You may also want headphone/earbuds and an actual mouse.**
OTHER COMMENTS	Tutoring and Extra Help • I am available for help before school. I'm usually in my room by 6:50. Let me know you're coming so that I can make sure I am there. I am more than willing to assist students who need additional help with math if they are using their in-class time appropriately. • If you need extra after-school help you need to talk to me about it. Communication Feel free to contact me with any questions/comments/concerns about your child. Please leave a number where you can be reached both during the day and in the evening. I am also available through email. Remind For reminders and announcements sign up for Remind! Instructions and codes can be found on my school website. You can also read my open house handout for more details about my classes. It can be found on my website.