

COURSE OVERVIEW

Functions and Statistics/ Trigonometry and Probability

TITLE OF COURSE	Functions and Statistics (1 st Semester)/Trigonometry and Probability (2 nd Semester)
TEACHER'S NAME	Mrs. Royston
COURSE INFORMATION	Hour: 2 nd , 4 th , and 5 th Room: 220 Duration: All year – one credit
TEACHER INFORMATION	Planning Hour: 3 rd 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	<p>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 know. 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.</p> <p>Topics/Chapters that will be learned.</p> <p>1st Semester Functions and Statistics</p> <p style="padding-left: 40px;">Chapter 1: Exploring Data</p> <p style="padding-left: 40px;">Chapter 2: Functions and Models</p> <p style="padding-left: 40px;">Chapter 3: Transformations of Graphs and Data</p> <p style="padding-left: 40px;">Chapter 9: Polynomial Functions</p> <p>2nd Semester Trigonometry and Probability</p> <p style="padding-left: 40px;">Chapter 4: Circular Functions</p> <p style="padding-left: 40px;">Chapter 7: Probability and Simulation</p> <p style="padding-left: 40px;">Chapter 5: Trigonometric Functions</p> <p style="padding-left: 40px;">Chapter 11: Matrices and Trigonometry</p> <p style="padding-left: 40px;">Chapter 13: Further Work with Trigonometry</p>
TEXTS AND/ OR OTHER MATERIALS	<p>Textbook</p> <ul style="list-style-type: none"> • We use the University of Chicago School Mathematics Project FST book. • Textbooks are to be brought to class EVERY day. • Books must be returned to the media center at the end of the year or upon exit from the class. You may be fined for lost and/or damaged books. <p>Recommended Materials: Materials are available in the classroom, but should also be available at home for homework and practice.</p> <p>Materials are available in the classroom, but should also be available at home for homework and practice.</p>

	<ul style="list-style-type: none"> • Pencils/erasers, ruler, paper, graph paper • Only the Geometry classes need a <u>protractor</u> (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. <p><u>Chromebooks</u> need to come to school every day charged. Bring your charger too. You may also want headphone/earbuds and an actual mouse.</p>
FORMAT AND ACTIVITIES	<p><u>Teacher will:</u> Lecture, lead whole class discussions, facilitate small and large group activities, provide assistance on class-work and administer appropriate assessments.</p> <p><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.</p>
GRADING PRACTICES AND PROCEDURES	<p><u>Grades</u></p> <ul style="list-style-type: none"> • All graded assignments and assessments will be entered into synergy/StudentVue/ParentVue. • The total semester work will be worth 80% of the semester grade. The semester exam will make up the additional 20% of the semester. • Report cards are issued 6 times during the course of the year. A marking period will be approximately 6 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. <p><u>Grading Scale and Weights</u> Semester grades will be calculated using the following weights: 80% of the semester grade is weighted as follows: <u>30% 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</u></p>

	<p><u>problem numbers</u> at the top of each page of notes. <i>You must stay organized to succeed in this class.</i></p> <p><u>70%</u> Assessments including quizzes, tests, and projects. There will be both announced and unannounced quizzes. You can expect about one or two quizzes a chapter. Take these quizzes seriously. Tests will be given mid and/or at the end of a chapter.</p> <p>Semester exams make up the remaining 20% of semester grades.</p> <p>Grading Scale:</p> <table><tr><td>A</td><td>100% - 93%</td><td>C+</td><td>79% - 77%</td></tr><tr><td>A-</td><td>92% - 90%</td><td>C</td><td>76% - 73%</td></tr><tr><td>B+</td><td>89% - 87%</td><td>C-</td><td>72% - 70%</td></tr><tr><td>B</td><td>86% - 83%</td><td>D+</td><td>69% - 67%</td></tr><tr><td>B-</td><td>82% - 80%</td><td>D</td><td>66% - 63%</td></tr><tr><td></td><td></td><td>D-</td><td>62% - 60%</td></tr><tr><td></td><td></td><td>E</td><td>Below 60%</td></tr></table>	A	100% - 93%	C+	79% - 77%	A-	92% - 90%	C	76% - 73%	B+	89% - 87%	C-	72% - 70%	B	86% - 83%	D+	69% - 67%	B-	82% - 80%	D	66% - 63%			D-	62% - 60%			E	Below 60%
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ATTENDANCE/ TARDINESS	<p><u>Attendance</u> REGULAR CLASS ATTENDANCE AND PARTICIPATION IS THE KEY TO LEARNING AND BEING SUCCESSFUL IN MATHEMATICS.</p> <p>ABSENCES</p> <ul style="list-style-type: none">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 have 1 day per EXCUSED absence plus 1 to complete ALL of your make-up work (this includes quizzes and tests). Note that this does not apply in the case of an unexcused absence (ie: skips).You are considered absent if you miss more than 15 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. <p>TARDIES</p> <ul style="list-style-type: none">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.																												

<p>CLASSROOM RULES AND PROCEDURES</p>	<p>ALL SCHOOL RULES FROM THE STUDENT HANDBOOK APPLY IN THIS CLASSROOM!</p> <ul style="list-style-type: none"> • 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 requested. <p>STUDENT EXPECTATIONS</p> <ul style="list-style-type: none"> • 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 <p>CLASSROOM BEHAVIORS</p> <ul style="list-style-type: none"> • 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. <p>HALL PASSES</p> <ul style="list-style-type: none"> • If you are in the hall, you must have a pass. If you need to leave class you need to ask at an appropriate time for a pass. Have your pass filled out prior to asking. <p>MAKEUP WORK</p> <ul style="list-style-type: none"> ○ Missed assignments are YOUR responsibility. 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. (See attendance section for more details.) Students can email me directly to find out what they missed.
<p>ACADEMIC INTEGRITY</p>	<p>Academic Integrity</p> <p>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:</p> <p>Level I - Violation</p> <ol style="list-style-type: none"> a. Submitting another's assignment as one's own. b. Knowingly allowing another student to use an assignment or test to submit as his/her own. c. Looking at another's test or essay and submitting the work as one's own. d. Knowingly assisting another student to misrepresent the content or authorship of his/her school work. e. Using any type of notes or technology without teacher approval. f. Plagiarism. <p>All Level I Academic Integrity violations will be addressed by the classroom</p>

	<p>teacher as outlined in their course syllabus.</p> <p>Level II – Violation</p> <p>Unauthorized possession, use and/or theft of test materials, answer sheets, teacher materials, computer files, grading programs, and/or altering teacher records.</p> <p>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.</p>
TESTING OUT	<p>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 are can be found in the Student Handbook.</p>
TECHNOLOGY USAGE	<p>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-34's in class. Students are not allowed to take these calculators out of class.</p> <p>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 (TI-83 or TI-83+ or TI-84) graphing calculators.</p> <p>Chromebooks need to come to school every day charged. Bring your charger too. You may also want headphone/earbuds and an actual mouse.</p>
OTHER COMMENTS	<p><u>Tutoring and Extra Help</u></p> <ul style="list-style-type: none"> • 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 on 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. <p><u>Communication</u></p> <p>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.</p> <p><u>Remind</u></p> <p>For reminders and announcements sign up for Remind! Instructions and codes can be found on my school website.</p> <p>You can also read my open house handout for more details about my classes. It can be found on my website.</p>