FORT COLLINS HIGH SCHOOL ***Algebra 2*** **Off Periods: 5th and 8th**

Instructor: Dan Reinke **Phone: 970-488-8116** **Email: dreinke@psdschools.org**
Room: L110

COURSE DESCRIPTION

This course is a further exploration of the algebra of the real number system with an extension to the complex system, as well as continued development of problem solving skills. As a result, students will be able to communicate mathematically, make connections within algebra and between other disciplines. This course interweaves mathematical topics of algebra, geometry, statistics, trigonometry, number systems, and measurement. Algebra 2 explores functional relationships, transformation of functions, quadratic functions, polynomial functions, trigonometric functions, radical functions, exponential and logarithmic functions, rational functions, and modeling functions both with and without technology. Upon successful completion, students can progress to College Algebra, Pre-Calculus, or AP Statistics.

COURSE OBJECTIVES

Semester 1

- Tools of Algebra
- Functional Relationships
- Transformation of Functions
- Quadratic Functions and Modeling
- Polynomial Functions, Zeros, and Modeling

Semester 2

- Probability and Statistics
- Inferences and Conclusions from Data
- Radical Functions and Modeling
- Exponential and Logarithmic Functions and Modeling

COMMON CORE STATE STANDARDS FOR MATHEMATICS

- Number Sense, Properties, and Operations
- Patterns, Functions, and Algebraic Structures
- Analysis, Statistics, and Probability
- Shape, Dimension, and Geometric Relationships

COURSE LEVEL

This course is offered to all grade levels. Successful completion (C or better) of Geometry is the prerequisite.

COURSE INSTRUCTION

Instruction will be a combination of lecture and discussion, along with inquiry learning and group work. Instruction will guide students to solve mathematical problems, think critically, work cooperatively with others, and communicate math ideas.

COURSE CONTENT

This course will include curriculum selected by the Poudre School District.

- The textbook **Big Ideas Math: Algebra 2** is the foundation of the material for this course.
- For On-Line Access…Go to: www.bigideasmath.com and click on *Login with Clever*
- Login with your PSD username and password

COURSE TECHNOLOGY EXPECTATIONS

Digital literacy is a valued skill at FCHS and essential for post-secondary readiness in the 21st century. This course has a technology expectation that students come to class prepared with school issued technology devices every day. Failure to come to class prepared may result in loss of credit for assigned work during that class period.

Students are expected to:

· fully comply with the PSD User Agreement, PSD Notebook Computer Handbook, PSD Code of Conduct and district policy JS - STUDENT USE OF DISTRICT COMPUTERS, E-MAIL& INTERNET ACCESS.

· make sure their district issued device is fully charged, in working order and ready for use each day. If not charged, then they should bring their charger to school or use the school charging stations in the media

center. If their device is not working, it must be turned in to the technology department for repairs. It is the student's responsibility to check out a loaner device until the assigned one is repaired.

GRADE SCALE

90% - 100%	A
80% - 89.9%	B
70% - 79.9%	C
60% - 69.9%	D
Below 60%	F

Your grade in Algebra 2 will be determined by:

Homework Completion (20%):

- Homework will be assigned on a regular basis. I will try to allow time to start assignments in class. Homework is graded on completion so if you have questions…*you need to ask them*!
- Work will be due at the beginning of the following class … then we will go over any homework questions, unless otherwise stated.
- Late homework will be accepted. *If you are absent you need to make up homework.*
- When we have classwork assignments they will fall into the homework category on gradebook.

Quizzes (30%) and Unit Tests (40%):

- Quizzes and unit tests will be pre-announced and the review is very similar to the test.
- **NO RETAKES** (Quizzes or Exams) will be allowed!!!

Final Exam (10%):

- A cumulative district final exam will be given at the end of each semester.

MY PHILOSOPHIES AND EXPECTATIONS

We are all in this together. Math can be difficult, so it is important to learn from one another and help each other. Do not be afraid to ask questions. Algebra 2 is a very important class for a number of reasons so *take advantage of every opportunity* (class period) to learn and get better! Your ATTITUDE and EFFORT (in everything you do!) will determine what you get out of your days in Algebra 2 and at Collins.

PLEASE (Notice I asked nicely…)

(1) Be prepared: This means bringing paper, pencils, a calculator and the textbook to class every day.
(2) Be respectful: Respect yourself, your peers, and me (remember…I'm here to help). This includes showing up on time, being polite, and listening objectively to peers' opinions and questions. This also includes putting cell phones and iPods away and keeping our room clean.
(3) Be an active participant: ASK QUESTIONS!

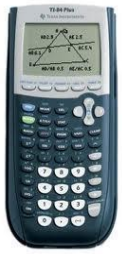
L110 CELL PHONE / MUSIC PLAYER RULES:

Put your cell phones and earbuds away during instruction!! You can listen to music in class when we have time to start homework assignments and when we are working on classwork assignments. You may not listen to music during tests and quizzes. Sorry, but "cheater kid" ruined that for you!

CALCULATORS

When choosing a calculator, it is often difficult to decide which model is the right choice for you. For classes beyond Algebra 1, a *scientific* calculator is necessary. My favorite *scientific* calculators include: TI-30 XIIS, TI-30 XS, or the TI-30 XA models. They cost from $10 to $15.

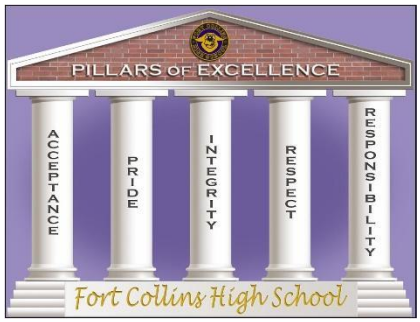
Graphing calculators are **recommended**, but not required for **Algebra 2 and higher**. The best *graphing* calculators include: TI-83, TI-83+, TI-84, or the TI-84+. These cost from $80 to $95. If you are planning on eventually taking Pre-Calculus, AP Statistics, or AB/BC Calculus, it is a good idea to invest in a *graphing* calculator. These are the calculators that are used on SAT/ACT tests, AP math tests, and they can be used through every college math class, too. Even though they are expensive, they are **worth the investment.**



STUDENT RESPONSIBILITIES

STUDENTS WILL ADHERE TO ALL FCHS POLICIES AND THE POUDRE SCHOOL DISTRICT "CODE OF CONDUCT" AT ALL TIMES TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

1. **Attendance** – Students must attend class to receive the greatest benefit from instruction and class interaction. Students who miss class are never able to completely make up missed work. Nevertheless, students with excused absences will be allowed to make up work according to Poudre School District policy. *It is the student's responsibility to contact the instructor – outside of class – to complete missed assignments.* Unless prior approval is granted by the instructor, **late work will not be accepted**!!!!
2. **Participation** – Each student is responsible for participating in class discussions and contributing to the learning environment of the class. In order to fulfill his/her responsibility, it is necessary to be in class, on time with all materials, including paper and a writing instrument.
3. **Assignments** – Students are responsible for coming to class prepared. All assignments are due at the start of the class on the date the assignment is due. Please consult the Blackboard website or hard copy of assignments for due dates.
4. **Classroom Conduct** – Food and drink are not allowed in class, but water is permissible. Please help keep the room clean! The classroom is a formal setting - adhere to the school dress code.
5. **Electronic Devices** – No electronic device of any kind may be used in class without permission. The presence of an electronic device during a test or quiz will be considered evidence of academic dishonesty.
6. **Final Examination** – Failure to take the final examination may result in a failing grade for this class.

ACADEMIC DISHONESTY

Each student is required to do his/her own work. Plagiarism and/or cheating will not be tolerated, and if detected, will result in disciplinary referral action. The Fort Collins Student Handbook outlines the consequences for cheating and plagiarism, and the instructor will, with the assistance of an administrator, implement the policy. A first incident of plagiarism and/or cheating will result in a zero. Additional incidents may result in expulsion from school. Please consult the Handbook for the full text of the consequences for academic honesty.