WELCOME to Algebra 2 PreAP Course

The Algebra 2 PreAP class will allow students to further develop their skills in Algebra. Students will learn to analyze/solve systems of equations and inequalities, Matrices, explore Functions (Quadratic, Square Root, Exponential, Logarithmic, Polynomial, Rational and Radical) identifying their attributes/transformations and relate to applications in the real world. Individual and group engagement in mathematical discussion and investigation is expected/required. Students will learn from Model Instructional Units from the HISD Algebra 2 Master Course, College Board PreAP classroom and Khan Academy. Other resources (IXL, Imagine Math and Savvas Realize) may be used to enhance instruction and or bridge any learning gaps as appropriate. The course will help strengthen students problem solving, critical thinking and reasoning skills with a view to ensuring near term success in high school as well as future success in College/Life.

Algebra 2 PreAP Topics:

Unit 1: Develop a Family of Functions and Data Regression

Unit 2: Analyze Transformations of Functions using multiple representations

Unit 3: Connect the relationships between composition and inverse of function

Unit 4: Analyze and solve Systems of Equations and Inequalities with multiple representations

Unit 5: Explore various methods to factor and solve Quadratic Functions including Complex Numbers.

Unit 6: Analyze and solve Square Root Functions and Cube Root Functions

Unit 7: Analyze the attributes of Polynomial Functions

Unit 8: Analyze Inverse variations & Transformations of Rational Functions

Unit 9: Analyze transformations and inverses into Exponential and Logarithmic Functions

Unit 10: Solve Applications of Exponential Functions

Unit 11: Bridge to Pre-Calculus (Identify and analyze Conic Sections/Periodic Functions)
**Six Weeks Grading Policy:**

- **50%** Classwork/Homework/Minor Projects
- **30%** Major Grades (Tests, Quizzes, Major Projects, etc.)
- **20%** Daily Grades/participation

**Re-Test Policy:**

1. **One (1) Tutorial session** is required prior to re-test.
2. Re-test must occur **within ONE week** of the return of the original test.
3. Maximum score on re-test: **70**

**Homework:**

Expect to have **at least 6 homework assignments per cycle**. All homework assignments are due the 1st Monday after they were assigned unless the teacher has specified otherwise and/or a student accommodation is on file.

Attempt ALL assignments and put forth your best student scholar effort. SHOW work as appropriate and when applicable – “No work, no credit” (NWNC). *Any work not turned in will result in a zero (50) and late work may earn no more than a 70.*

**Absences:**

If you are absent, **it is your responsibility** to discuss/collections make-up with/from your teacher.

1. If you are absent the day an assignment is due, it must be turned in the first day you return.
2. If you are absent the day an assignment is **assigned**, it will be due the following day you return to class after the assignment is received.

**Class Materials:**

Each student must bring a **fully charged laptop** to class every day. Each student must maintain a **Math only** notebook for study and documentation. An Electronic notebook is strongly encouraged but a hardcopy notebook or binder is ok as well. Notes will be checked periodically. The supplies needed for class are listed below and each student is expected to have them by Monday, August 29, 2022.

| 1. Laptop | 4. Colored Pens/Markers/ Highlighter |
| 2. Loose-leaf paper; | 5. Notebook |
| 3. #2 pencils | 6. 1” - 2”, three-ring binder |

**Note:** If you will have difficulty acquiring any of these materials, please notify me IMMEDIATELY. Do not wait until the due date. HISD Wraparound resources and or other means may be available to help with supplies.
Classroom Projects:

A major project and some minor projects may be assigned each semester. Projects may be individual or group assignments depending on the content/subject matter and suitability. Students will be awarded a Major grade for any projects assigned.

Calculator:

HISD approved online calculators such as “Desmos” will be used. A classroom set of TI-84 Plus calculators will also be provided. Students are also encouraged to download the TI-84 calculator app on their laptops as well. You may also use a personal calculator as well as long as it is compliant with HISD policies.

Classroom Norms:

✓ Respect everyone.
✓ Be on time – Tardies are NOT acceptable
✓ Be well prepared – Bring adequately charged Laptop and all class materials daily
✓ Follow oral and written directions
✓ Put forth your best EFFORT and be on task always.
✓ All cellphones must be powered off prior to entering the classroom. Cellphones may ONLY be used at specific times for class assignments when indicated. Non-compliance with the cellphone rules will result in their temporary confiscation and a parent conference may be required.
Waltrip High School

Algebra 2 PreAP Course **Student and Parent** Signature Form

I have read and discussed the Algebra 2 2022-23 Syllabus and accept responsibility for meeting these expectations in class. Please complete all lines of this form.

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<th>Date</th>
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Parent/Guardian daytime phone _________________________ (work) _________________________
(cell)

Relation to student: _________________________

Parent/Guardian’s e-mail address: ______________________________________________________

**Parents/ Guardians: Please complete all lines of the information above** and have your son/daughter promptly return this last page only by Friday, September 2, 2021.