



Houston Independent School District
S.P. Waltrip High School
1900 West 34th Street, Houston, Texas 77018-6186
Phone: 713-688-1361 · Fax: 713-957-7743 · Website: www.houstonisd.org/waltriphs



PRE-AP Precalculus 2 SYLLABUS 2020-2021

Anasuya Chowdhury - achowdhu@houstonisd.org; Room: #3219
Office Hours: Mon (3:25-4:10 pm); Tue-Fri (1:50-2:35 pm)

Welcome to Mrs. Chowdhury's PRE-AP Precalculus:

<https://docs.google.com/presentation/d/12HC0nBmpdiSpwmCiZaB2ZPkjgQiX1UTaz5qHfpyXAT0/edit?usp=sharing>

Video Link: https://drive.google.com/file/d/1IPTk8BRx_9HXWXAWMUI1hCuvG41Mq3H2/view?usp=sharing

This Pre-Advance Placement Precalculus class will allow students to explore mathematics and develop critical thinking skills. Students will use previously acquired algebraic and geometric skills to solve real-world trigonometric problems. Problem solving strategies will also be an important tool for learning about various functions as exponential, logarithmic, polynomial, rational, radical, and trigonometric, and polar functions. The classroom will be a place for mathematical discussion. Students will complete several Model Instructional Units from their text book and using Laying the Foundation materials. Some materials from Springboard (Springboard is created by the College Board to help bridge the gap between high school and college expectations and will help to strengthen students' problem solving, critical thinking, and reasoning skills as they pertain to reading, writing, and mathematics) also will be used to enhance instruction. This course will prepare students not only for Advance Placement Programs, but also college readiness-including the SAT.

Course Objectives:

After completing Pre-AP Pre-Calculus students will have a fundamental grounding in Algebra and Trigonometry and be prepared for Calculus and other higher-level mathematics courses. At the satisfactory completion of this course, a student will be able to:

- Solve elementary algebraic and transcendental equations using analytical, numerical, and graphical methods.
- Use algebraic and transcendental equations to model and solve applications.
- Draw and interpret graphs of elementary functions; i.e., linear, quadratic, polynomial, exponential, logarithmic and trigonometric functions.

- Course Content
- The course will review the basic definitions and concepts of functions. In particular we shall discuss exponential, logarithmic and trigonometric functions, as well as applications involving these functions. If time permits an introduction into Calculus will be discussed.
- Cooperative Learning Groups
- You may do some of the work of this course in cooperative learning groups. It seems to work best if there are three or four students in each group. You will be working with your small group in class and on certain homework assignments
- Working well in a group is an important skill. Some of you may enjoy the group work more than others, and all of you will benefit from further developing this skill. In college and in the working world most of you will be required to function as a member of a project team. One objective of group work in this course is to help you to develop skills in working effectively as part of a team.
- One of the objectives of this course is to help you to learn to think about problems mathematically and to solve the problems on your own. Working with your colleagues in this class and talking about problems with your group members are strategies to help you better understand a problem situation from several points of view.

SIX WEEKS GRADING POLICY:

30% Major Grades (Tests, Quizzes, Major Projects, etc.)

20% Daily Grades/participation

50% Classwork/Homework/Minor Projects

Re-Test Policy: (Only for failed tests)

1. The re-test must occur **within ONE week** of the return of the original test.
2. Maximum score on re-test: 70

Assignments

Expect to have AT LEAST 2 assignments per week. Attempt ALL assignments and put forth a college-student effort. All assignments must SHOW work (when applicable) – just answers are **NOT** accepted. “*No work, no credit*” (NWNOC). Attempting all homework assignments have a positive correlation with higher quiz and test grades. Any work not turned in will result in a zero.

ABSENCES:

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

1. If you are absent the day an assignment is **due**, it must be turned in the 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 assignment is received.

CLASSROOM PROJECTS: A major project and some minor projects will be assigned each semester. Projects are group or individual depending on the topic. Students will be awarded a Major grade for the projects

CLASS MATERIALS:

Each student must maintain a **math only** notebook for study and documentation. Every student must bring a laptop to the class/ Mirosoft Team Meetings everyday.

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| 1. 1 - 2", three-ring binder (<i>optional</i>) | 4. Colored markers/ highlighter (<i>optional</i>) |
| 2. Loose-leaf paper; | 5. Notebook |
| 3. #2 pencils | 6. Laptop |

CALCULATOR: A TI-84 Plus will be used in the classroom. A classroom set of calculators may be used while in class – each one assigned by number. Students may also be encouraged to download the calculator app on their laptop (Specially during virtual learning)

CLASSROOM NORMS:

- ✓ Be on time - you miss out when you're late;
- ✓ Be prepared; be actively engaged
- ✓ Follow oral and written directions
- ✓ Respect the rights of others
- ✓ Use the raise hand feature during Microsoft Team Meet/Mute your mic when you are not speaking
- ✓ Put forth your best EFFORT
- ✓ No cell phones during in person class; Your phone will be confiscated if you use them while class is in session; parent conference may be required for non-compliance.

	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6		
PAP Precalculus	<p><u>Unit 1</u> <u>Values of Trig Functions</u> PC 1D, 1E, 2P, 4A, 4B, 4C, 4E, 4I</p> <p><u>Unit 2</u> <u>Graphs and properties of trig functions</u> PC 2D, 2I, 2F, 4A, 2O, 2J Uni</p> <p><u>Unit 3</u> <u>Inverse of the Trig Functions</u> PC 2A, 2B, 2F, 2C, 2E, 2J, 2H</p>	<p><u>Unit 4</u> <u>Trig identities</u> PC 1C, 1D, 5N, 5M</p> <p><u>Unit 5</u> <u>Trigonometric equations</u> 1A, 1D, 4B, 5M, 5N</p>	<p><u>Unit 6</u> <u>Applications of Trig Functions</u></p> <p>Functions : PC 2O, 2P</p> <p><u>Number and measures</u> PC 4E, 4B, 4D, 4E, 4F, 4G, 4H, 4J, 4K</p> <p><u>Unit 8</u> <u>Attributes of piecewise functions</u> PC 2F, 2I</p>	<p><u>Unit 9</u> <u>Polynomial Functions in the real world</u> PC 2D, 2F, 2G, 2I, 2J, 2N, 5J</p> <p><u>Unit 10</u> <u>Rational Functions</u> PC 2D, 2F, 2G, 2I, 2K, 2L, 2M</p> <p><u>Unit 11</u> <u>Exponential and logarithmic functions</u> PC 2D, 2F, , 2E, 2G, 5G, 5H, 5I</p>	<p><u>Unit 12</u> <u>Arithmetic and Geometric Sequences and Series</u> PC.1B, PC.1D, PC.5A, PC.5B, PC.5C, PC.5D, PC.5E</p> <p><u>Unit 13</u> <u>Bionomial Theorem</u> 1A, 1G, 5F</p> <p><u>Unit 14</u> <u>Conic section and attributes of ellipses and hyperabolla</u> 1A, 1B, 3F, 3G, 3H, 3I</p> <p><u>Unit 15</u> <u>Parametric equations and plane curves</u> 3A, 3B 3C</p>	<p><u>Unit 16</u> <u>Polar coordinates, equations and graphs</u> _PC.1D, 1E, 3D, 3E</p> <p><u>Unit 17</u> <u>Vector</u> PC. 4I, 4J, 4K, 1A, 1C</p> <p><u>Unit 18</u> <u>Bridge to calculus - exploring limits</u> PC 1F, 1G <i>College board AP Calculus</i> EK 1.1A1, EK 1.1A2, EK1.1A3, EK11D1, D2, 2A2</p>		STAAR

Waltrip High School

PRE-AP Precalculus Course Student and Parent Signature Form

I have read and discussed the **PRE-AP Precalculus 2020-2021** Syllabus and accept responsibility for meeting these expectations in class. Please complete all lines of this form. If not applicable, indicate by "N/A".

Student Name (print)

Date

Student Signature

Date

Parent/Guardian Signature

Date

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 email this page only/or through HUB assignments by Tuesday, September 15, 2020.