

Pre AP Precalculus Syllabus 2016-2017



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Prerequisite: Algebra 1, Geometry, Algebra 2

Welcome to Pre-AP Precalculus!!! Success in this course will depend on your effort and willingness to be challenged and meet those challenges with problem solving skills and questions when you do not understand. Much of the material covered this year will be new to you. Growing pains are to be expected and are minimized by redoubled efforts, patience, and perseverance.

Course Description:

Precalculus combines the trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus, and strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems. Facility with these topics is especially important for students intending to study calculus, physics, and other sciences, and/or engineering in college.

MATERIAL COVERED

Precalculus Prerequisites

Numbers, Notation, & Exponents
Agility, Simplifying, & Evaluating
Coordinate Geometry, Equations, & Lines
Complex Numbers, Modeling, &
Calculators

Fun and Functions

Algebraic Domains of Functions
Limits & Continuity
Other Properties of Functions
Parent Functions and Transformations
Building Functions from other Functions

Polynomial and Rational Functions

Polynomial Functions and Inequalities
Binomial Theorem and Pascal's Triangle
Real Zeros of Polynomial Functions
The Intermediate Value Theorem
Complex Zeros of Polynomial Functions
Rational Functions & Inequalities
Radical Functions and Power Functions

Exponential and Log Functions

Exponential and Logistic Functions
Exponential and Logistic Modeling
Logarithmic Functions
Properties of Logs
Exponential and Log Equations

Trigonometric Functions

Angles and Angle Measure
Applications of Angles
Circular Trig Functions
Using the Unit Circle
Sinusoids
Applications of Sinusoids
The Other Trig Functions
Inverse Trig Functions
Problem Solving with Trigonometry

Analytic Trigonometry

Fundamental Identities
Trig Proofs!!!
Composite Identities
Other Identities
The Law of Sines
The Law of Cosines & Area

Polar, Parametric, & Vectors

Polar Coordinates
Graphs of Polar Equations
Plane Curves and
Parametric Equations
Vectors in 2-D

Introduction to Calculus

The Derivative
The Integral
Sequences & Series

Conic Sections

Circles & Ellipses w/ Applications
Hyperbolas &
Parabolas w/ Applications

Textbook: Springboard Precalculus

Grading Policy:

Daily Work 40%
Tests 60%

Absent work: Students have the number of days absent plus one day. It is your responsibility to obtain make-up work. Attendance is key to receiving proper instruction and to success in this course.

Late work: If an assignment is turned in one day late the student can receive a maximum grade of 75 on that assignment. If the assignment is two days late the maximum grade received will be a 50. After two days the assignment will not be accepted and will be a 0. This does not apply to absent work.

Supplies:

- 3 ring binder (1" - 1.5")
- 3 dividers
- Pencils
- Paper (notebook and graph)

Class Rules:

1. **Be** in your seat **before** the tardy bell rings.
 - 1st Tardy: Sign tardy sheet, verbal warning
 - 2nd Tardy: Sign tardy sheet, 15 minute detention, parent contact
 - 3rd Tardy: Sign tardy sheet, office referral
 - 3 Tardies count as one absence
2. Be **prepared** for class with all required materials and completed assignments. If you are absent, **you** are responsible for requesting make-up work.
3. Work **respectfully** and cooperatively with other students and the teacher. No disruptions that interfere with the teaching/learning process.
4. Stay on **TASK**. Work until your assignment is complete or the bell rings.
5. Follow the school discipline policies in the student handbook. **(NO Cell Phones-texting without teacher permission. \$15 fine if phone is picked up and taken to the office.)**
6. Comply with WPHS dress code.

Consequences for breaking the rules:

1. First offense—verbal warning- teacher discretion
2. Second offense— 1 detention-Parent Contact
3. Third offense—office referral- Parent contact

*****Severe disruption—immediate office referral**

You, as a parent, are an important part of this team. It will take **all** of us working together to help your student reach their potential. I welcome you to my class. Please feel free to contact me anytime.

Sincerely,

Ms. Nottingham

Show this letter to your parent or guardian. Have them sign and return the next page by Friday August ???.

I have read the Pre AP Precalculus syllabus. Please sign and return this for your student's first grade in this course.

Student Name

Parent email

Parent or Guardian

Parent Phone