

Academic Precalculus Course Expectations

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Course Overview:

Academic Precalculus completes the formal study of the elementary functions begun in Algebra I and Algebra II. The purpose of this course is to develop skills necessary for the study of calculus through the use of technology, modeling, and problem solving. All major areas covered in Algebra II are reinforced at a greater depth with additional applications during the first semester as well as sequences and series. Trigonometry is studied during the second semester.

Standards for Mathematical Practice:

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reason.

Course Objectives:

- Students will be able to demonstrate a theoretical, operational, and graphic understanding of functions including polynomial, rational, exponential, logarithmic, and trigonometric.
- Students will be able to apply algebraic skills to the formulation and solution of real world application problems.
- Students will be able to represent equations and systems of equations graphically through the use of graphing technology, and to integrate the algebraic and graphic interpretation of these concepts.
- Students will be able to advance readily to calculus.

Material Covered:

Unit 1: Algebra Fundamentals
Unit 2: Functions
Unit 3: Polynomial and Rational Functions
Unit 4: Exponential and Logarithmic Functions
Unit 5: Sequences and Series
Unit 6: Trigonometric Functions of Real Numbers
Unit 7: Trigonometric Functions of Angles
Unit 8: Analytic Trigonometry
Unit 9: Analytic Geometry

Class/ Behavior Expectations:

- Be respectful, responsible, honest, and safe to self, others, and all property.
- Be on time and prepared for class.
- Be active and involved in learning.
- All school rules and policies as stated in the handbook apply.
- The use of technology (iPods, phones, laptops) is prohibited in this classroom unless directed by the instructor. All technology should be kept in lockers or backpacks. If used without permission, the technology will be confiscated and kept until the end of the period. Multiple offenses will result in teacher detentions and/or office blue slips.

Homework:

Homework will be given in this class to practice skills that were learned in class or review prior learned material. Homework will be either be checked for completion or collected and graded. Homework will be graded out of 4 points if checked for completion in class or 10-25 points if collected and graded. Students *must* show work on homework assignments when appropriate. Students are expected to have each assignment dated with the page number and problem numbers assigned.

Notebook:

Students are required to have a notebook, binder or a section of a binder for this class as well as a place for handouts (a folder or in a binder). Students should keep all assignments to help prepare for the midterm and final.

Make Up work:

Students are responsible for all material covered and assignments during an excused absence. Work should be completed and turned in the next day. In cases of lengthy excused absences, a make-up plan will be devised. Students are encouraged to see me for missed information and assignments.

Grading Policy: *Total Points System*

Tests:	100 points
Quizzes:	50 points
Homework quizzes:	5-30 points
Homework:	4 or 10 points each assignment
In-class assignments:	5-20 points
Projects:	25-100 points
Warm-ups/Exit Slips:	5-20 points

Semester Grade: 40% of each quarter, 20% of semester exam

"You don't get what you want, you get what you earn."

Technology:

Graphing calculators (TI-83 and TI-83 plus) are used to explore, discover and reinforce the concepts throughout the course.

Extra help:

Seek help immediately. I will be available for students whenever possible for extra help. Students need to make arrangements to see me for extra help in advance.

Final Assessment Policy:

For one credit or half-credit full year courses, *course assessments* (exams/activity) are given at the conclusion of each semester, a mid-term and a final. For half-credit courses, a *course assessment* (exam/activity) will be given at the end of the semester. All *course assessments*, except in selected classes, are one and one-half hours in length. All students must arrive on time and remain in class for the full duration of the period. Students taking the AP test will not be required to sit for a final exam.

Seniors are exempt from taking a *final course assessment*, in any course where the students have at least a 90 average. Physical Education classes will not be required to give an exam, but there will be a health exam which could be given earlier. Normally, no excuse for missing a *course assessment* other than illness will be accepted. The principal must give such permission.

Wheeler High School Academic Expectations:

- Literacy
- **Analysis (assessed in this course)**
- Collaboration
- Communication

Major Text:

Precalculus Mathematics for Calculus: 5th ed. Brooks/Cole, 2006.