

# *Criteria for Placement in Honors Mathematics Courses at PCHS*

## GEOMETRY HONORS

Recommendation of middle school Math teacher  
Grade of "B" or higher in Algebra I Honors or "A" in Algebra I  
FCAT scores of 4 or higher  
Scientific calculator (graphing calculator suggested)

## ALGEBRA II HONORS

Recommendation of Geometry Honors teacher  
Grade of "C" or higher in Geometry Honors  
FCAT score of 4  
Successful completion of summer assigned packet is mandatory  
Graphing calculator

## TRIGONOMETRY & MATH ANALYSIS

Recommendation of Algebra II teacher  
Grade of "C" or higher in Geometry and Algebra II (or Algebra II Honors)  
Successful completion of summer assigned packet is mandatory  
Graphing calculator

## DUAL CREDIT MAC 1105 – COLLEGE ALGEBRA (3 credits ECC)

### MAC 1147 – PRECALCULUS ALGEBRA/TRIG (5 credits ECC)

Recommendation of Algebra II Honors or Trigonometry/Math Analysis teacher  
Grade of "B" in Honors Algebra II or Trigonometry/Math Analysis  
90 on FCELPT or 23 on ACT or 540 on SAT  
GPA unweighted 3.0  
Successful completion of summer assigned packet is mandatory  
Graphing calculator required

## AP STATISTICS

Recommendation of Algebra II Honors or Trigonometry/Math Analysis teacher  
Grade of "B" in Honors Algebra II or Trigonometry/Math Analysis  
PSAT Math and Reading combined 110 (SAT 1100) or ACT 23  
Successful completion of summer assigned packet is mandatory  
Graphing calculator required

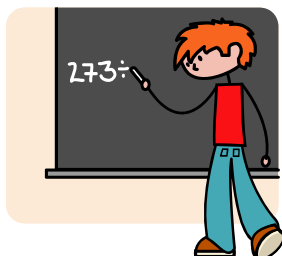
## AP CALCULUS

Grade of "B" or higher in College Algebra  
Recommendation of College Algebra teacher  
SAT Math and Reading combined 1100 or ACT 23  
Completion of summer assigned packet is mandatory  
Graphing calculator required

*A parental conference and/or pre-assessment test may be required for any student not meeting all pre-requisites. A student coming from a non-Honors course into an Honors course must have an acceptable score on the Honors placement rubric (except for Trigonometry/Math Analysis as this is a transition course).*

# *Port Charlotte High School*

## *Honors Math Instructional Objectives*



### *GEOMETRY HONORS*

The purpose of this course is to provide a rigorous in-depth study of geometry, supported with hands-on discovery and experimentation. Topics will include, but not be limited to:

angles, perpendicular and parallelism in a plane and in space, polygons with applications involving similarity and congruence, circles, spheres, platonic solids, area and volume studied through real world applications, coordinate geometry, transformational geometry, Euclidean geometry, and fractal geometry. Topics will be algebra-intensive, while emphasizing the formal language of mathematics. This course is designed to prepare the student for enrollment and success in a future Advanced Placement and/or Dual Credit or Dual Enrollment course. **A scientific calculator is required/graphing calculator suggested for this course.**

### *ALGEBRA 2 HONORS*

The purpose of this course is to present an in-depth study of the topics of Algebra II, with emphasis on theory and development of formulas, and circular and trigonometric functions and their applications. Topics include: algebraic structure, first and second-degree equations in one and two variables solved algebraically and graphically, systems of equalities and inequalities, functions and relations, polynomials and rational expressions, exponents and radicals, logarithms, complex numbers, conic sections, polynomial equations, sequences and series, permutations, combinations and probability, matrices and circular functions, trigonometric identities and graphs of trigonometric functions. This course is designed to prepare the student for enrollment and success in a future Advanced Placement and/or Dual Credit or Dual Enrollment course. **A graphing calculator is strongly recommended for this course.**

### *COLLEGE ALGEBRA/PRE-CALCULUS--MAC 1105/1147*

This is a course for well-prepared advanced mathematical students only. First semester topics will include, but not be limited to: exponential and logarithmic functions, circular and trigonometric functions, inverse functions, polynomial functions, sequences and

limits, elementary matrices and selected topics in analytic geometry. **A graphing calculator is required for this course.**

The second semester course is designed to be a rigorous approach to sequence, series, functions and limits leading to an understanding of the derived function. Emphasis is placed on proofs and the use of the graphing calculator. The course is intended for those students who desire to continue with advanced study in the area of calculus.

### TRIGONOMETRY/MATH ANALYSIS

Trigonometry provides students with the study of circular and trigonometric functions, their graphs and applications. Topics include measures of angles, sectors of circles, right angle trigonometry, circular functions, trigonometric identities, graphs of trigonometric functions, solutions of trigonometric equations, solutions of right and oblique triangles, word problems and applying trigonometric concepts. **A graphing calculator is strongly recommended for this course.**

Math Analysis explores the concepts of polynomial functions, systems of equations, graphs, applications for various functions, inverse functions, parametric functions, exponential, and logarithmic functions, elementary statistics, probability and data analysis. **A graphing calculator is strongly recommended.**

### AP CALCULUS

A parental conference is **required** for any student not meeting all the prerequisites, and a pre-assessment test may be given.

Topics will include, but not be limited to: real numbers, functions, limits, analytic geometry, elementary differentiation and integration of trigonometric functions, logarithmic and exponential functions and special techniques of integration. **A graphing calculator is required for this course.**

Students enrolled in this course must be capable of using symbolic notation and applying pre-calculus concepts in a variety of problem situations. Students must be mature, independent thinkers with excellent work habits, capable of interpreting material in the text, contributing to class discussions, and have a good attendance record.

### AP STATISTICS

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students who successfully complete this course and examination may receive credit and/or advanced placement for a one-semester introductory college statistics course.

Students are exposed to four conceptual themes:

1. Exploring Data: Observing patterns and departures from patterns.
2. Planning a Study: Deciding what and how to measure.
3. Anticipating Patterns: Producing models using probability and simulation.

#### 4. Statistical Inference: Confirming Models.

The AP Statistics course is an excellent option for any student, who has successfully completed a second year course in Algebra, regardless of the student's intended college major. Mathematical maturity, quantitative reasoning, and excellent reading comprehension skills are necessary for success in this course. **A graphing calculator is required.**