

**Curriculum Night!**  
**Precalculus and Precalculus**  
**Honors**

# Background Knowledge

Precalculus	Honors Precalculus
<p><b>GEOMETRY – Successful completion of the course with a grade of B or higher</b> Solid understanding of:</p> <ul style="list-style-type: none"><li>•Right Triangles</li><li>•Congruence Theorems</li><li>•Basic Trigonometry</li><li>•Basic understanding of proofs</li></ul>	<p><b>GEOMETRY - Successful completion of the <b>Honors Geometry</b> course with a grade of B or higher</b> Solid understanding of:</p> <ul style="list-style-type: none"><li>•Right Triangles</li><li>•Congruence Theorems</li><li>•Basic Trigonometry</li><li>•<b>Complete understanding of proofs</b></li></ul>
<p><b>ALGEBRA 2 - Successful completion of the course with a grade of B or higher</b> Solid understanding of:</p> <ul style="list-style-type: none"><li>•Factoring</li><li>•Simplifying fractions and radicals</li><li>•Solving a variety of equations</li><li>•Graphing a variety of functions</li><li>•Strong foundation of Algebraic skills</li></ul>	<p><b>ALGEBRA 2 - Successful completion of the <b>Honors Algebra 2</b> course with a grade of B or higher</b> <b>Complete understanding of:</b></p> <ul style="list-style-type: none"><li>•Factoring</li><li>•Simplifying fractions and radicals</li><li>•Solving <b>all types</b> of equations</li><li>•Graphing <b>all types</b> of functions</li><li>•Strong foundation of Algebraic skills</li><li>•<b>Strong analytic skills</b></li></ul>

# Who should take this class?

Precalculus	Honors Precalculus
<b>Students MOTIVATED TO LEARN</b> <ul style="list-style-type: none"><li>•Genuinely interested in learning math</li><li>•Persistent – unwilling to give up</li><li>•Ready for the “jump” to an upper level math course</li></ul>	<b>Students MOTIVATED TO BE CHALLENGED</b> <ul style="list-style-type: none"><li>•Genuinely interested in learning math</li><li>•Persistent – unwilling to give up</li><li>•Ready to extend themselves beyond their comfort zone</li></ul>
<b>Students with GREAT WORK ETHIC</b> <ul style="list-style-type: none"><li>•Students with DISCIPLINED WORK HABITS</li><li>•Students that are PROACTIVE when help is needed</li><li>•Can handle the nature of a cumulative course</li></ul>	<b>Students with GREAT WORK ETHIC</b> <ul style="list-style-type: none"><li>•Students with DISCIPLINED WORK HABITS</li><li>•Students that are PROACTIVE when help is needed</li><li>•Can handle the nature of a cumulative course</li></ul>
<b>Students with TIME MANAGEMENT SKILLS</b>	<b>Students with TIME MANAGEMENT SKILLS</b>
<b>Students with GREAT ATTENDANCE</b>	<b>Students with GREAT ATTENDANCE</b>
	<b>Students who can LEARN AT A QUICK PACE</b>

# Work Ethic: Students should...

Precalculus	Honors Precalculus
Complete all assignments on time	Complete all assignments on time
Be motivated to work through difficult problems... not easily give up	Be motivated to work through <b>challenging</b> problems... not easily give up
Understand the difference between homework and studying	Understand the difference between homework and studying
Check all assignments and assessment for accuracy – get extra practice if incorrect	Check all assignments and assessment for accuracy – get extra practice if incorrect
Study in advance to tests/quizzes	Study in advance to tests/quizzes
Seek help in advance to due dates and assessments	Seek help in advance to due dates and assessments
	<b>Be independent learners</b>

# Lesson Structure & Expectations

Precalculus	Honors Precalculus
Detailed lessons correspond directly to homework assignments and assessments	Lessons will guide students through the new concepts but will not cover 100% of the material
Students are expected to take detailed notes and use them to complete homework and prepare for assessments	Students are expected to take detailed notes and use them to complete homework and prepare for assessments
	To supplement the lessons taught in class, each student is expected to: <ul style="list-style-type: none"><li>•Be able to read and learn from the textbook</li><li>•Have a well developed mathematical vocabulary</li></ul>
Students are guided to make connections between concepts	Students are expected to be able to make connections and conjectures based on prior knowledge
Memory retention of accumulated concepts and skills is necessary for success	Memory retention of accumulated concepts and skills is necessary for success
	Student questions should be insightful and thought provoking

# Curriculum and Pacing

Topics Covered	Precalculus	Honors Precalculus
Intro to Trig	✓	✓
Graphing Trig Functions	✓	✓
Trig Identities	✓	✓
Inverse Trig Functions	✓	✓
Law of Sines and Cosines	✓	✓
<b>Vectors</b>	not covered	✓
<b>Polars</b>	not covered	✓
Functions	✓	✓
Polynomial and Rational Functions	✓	✓
Exponential and Logarithmic Functions	✓	✓
Conic Sections	✓	✓
<b>Sequences and Series</b>	not covered	✓
<b>Parametrics</b>	not covered	✓
Intro to Limits	✓	✓
<b>Calculus</b>	Derivatives only	✓

# Homework

Precalculus	Honors Precalculus
<b>Practice, practice, practice!</b>	<b>Practice, practice, practice!</b>
<b>Similar to the lesson</b> <ul style="list-style-type: none"><li>•Students will need to use their class notes to complete homework assignments accurately</li></ul>	<b>Supplemental reading may be required in addition to the lesson</b> <ul style="list-style-type: none"><li>•Students will need to use their class notes and read the textbook to complete homework assignments accurately</li></ul>
Practice and repetition from the homework will prepare the student for assessments	Higher level questions that extend beyond class discussion and allow students to explore and investigate mathematical concepts
Spend about 45min every night completing homework or reviewing course material	Spend about 45min every night completing homework or reviewing course material

# Assessment

Precalculus	Honors Precalculus
All assessments are CUMULATIVE	All assessments are CUMULATIVE
Background knowledge from Algebra 1, Algebra 2, and Geometry required	Background knowledge from Algebra 1, Algebra 2, and Geometry required
Similar to class notes and homework	Similar to class notes and homework with extensions
	Assessment questions combine a multitude of concepts and require students to make connections to previously learned material



# What's Next?

<b>Courses Offered</b>	<b>Precalculus</b>	<b>Honors Precalculus</b>
<b>Probability &amp; Statistics</b>	All students are qualified	All students are qualified
<b>AP Statistics</b>	Students with great work ethic and a grade of B or higher	Students with great work ethic and a grade of C+ or higher
<b>Calculus (Non-AP)</b>	Students with great work ethic and a grade of C+ or higher	Students with great work ethic and a grade of C or higher
<b>AP Calculus AB</b>	Students with great work ethic and a grade of B+ or higher	Students with great work ethic and a grade of C+ or higher
<b>AP Calculus BC</b>	-----	Students with great work ethic and a grade of B+ or higher

# Precalculus Quiz!

True	False	
✓		My child has a strong foundation in mathematics including Algebra 2 and Geometry.
✓		My child is motivated and excited to work through difficult math problems.
✓		My child has extremely disciplined work habits. (Completes all assignments on time, checks all assignments and assessments for accuracy – gets extra practice if incorrect, studies in advance to tests/quizzes)
✓		My child is proactive and seeks help when needed.
✓		My child has the time and motivation to put in about 45min of studying and/or homework completion each night for math class.
✓		My child is able to make connections based on prior mathematical knowledge.
✓		My child can handle the nature of a cumulative math course.
✓		My child has a genuine interest in learning mathematical concepts.

# Honors Precalculus Quiz!

True	False	
✓		My child has a <b>very</b> strong foundation in mathematics including Algebra 2 and Geometry.
✓		My child is motivated and excited to work through difficult and <b>challenging</b> math problems.
✓		My child has extremely disciplined work habits. (Completes all assignments on time, checks all assignments and assessments for accuracy – gets extra practice if incorrect, studies in advance to tests/quizzes)
✓		My child is proactive and seeks help when needed.
✓		My child has the time and motivation to put in about 45min of studying and/or homework completion each night for math class.
✓		My child is able to make connections and <b>conjectures</b> based on prior mathematical knowledge.
✓		My child can handle the nature of a cumulative math course.
✓		My child has a genuine interest in learning, <b>investigating, and exploring</b> mathematical concepts.
✓		My child has a well developed mathematical vocabulary and is able to learn and study from the textbook.
✓		My child is able to learn math at a quick pace.

# Thank You!

- Email Jay O'Rourke at [jdorourke2@fcps.edu](mailto:jdorourke2@fcps.edu) with any questions!