Course Description:

Math III progresses from the standards learned in Math I and Math II. In addition to these standards, Math III extended to include algebraic concepts such as: the complex number system, inverse functions, trigonometric functions and the unit circle. Math III also includes the geometric concepts of conics and circles.

COURSE MATERIALS

1.5in Binder preferably 3-ring
Pencils with erasers & lined paper,
Graph paper & pencils, colored pencils, highlighters
*Graphing calculator TI-83+ or 84 (can be checked out from library)

Units of Study / Pacing Guide

Unit 1: Functions and Their Inverses (10 days)
Unit 2: Exponential and Logarithmic Functions (9 days)
Unit 3: Polynomial Functions (12 days)
Unit 4: Introduction to Rational Functions (10 days)
Unit 5: Modeling with Geometry (5 days)
Unit 6: Reasoning with Parallelograms and Triangles (7 days)
Unit 7: Reasoning with Circles (9 days)
Unit 8: Trigonometric Functions (7 days)
Unit 9: Statistics (5 Days)

Goals / Objectives

- http://www.dpi.state.nc.us/docs/curriculum/mathematics/scos/current/math-3-unpacking.pdf

Resources

- https://www.khanacademy.org
- http://www.ncpublicschools.org/docs/accountability/testing/releasedforms/math3rel3235.pdf

Grading Scale

- A 90-100
- B 80-89
- C 70-79
- D 60-69
- F 59 - below

Honors Weights

- Test 60%
- Quiz 20%
- Assignments 20%

CP Weights

- Test 60%
- Quiz 15%
- Assignments 15%
- Notebook 10%

Final Grade

- Quarter 40%
- Quarter 40%
- Final Exam 20%

State EOC is the Final Exam

Homework:

Homework will be checked daily for completion. You will receive credit if ALL problems are written, numbered, attempted, and all necessary work is shown. You may receive half credit if your work is only partially completed. If you do not have your homework, no points are awarded. If you are absent, it is your responsibility to show me the assignment.

Notebooks

You will be required to keep a notebook using the Cornell Method for all class notes. All papers, assignments, notes, activities, etc should be kept in chronological order.

Tests

: You will have a major test at the end of each unit. Longer units may be broken into more than one test. Be present on test day unless you are sick. Since tests will be announced several days in advance, you will be expected to take the test upon return from an absence. IF YOU ARE ABSENT THE DAY BEFORE A TEST, YOU WILL TAKE THE TEST WITH THE REST OF THE CLASS . If you do miss a test, it is YOUR responsibility to see me about making up the test. Make up tests may be different from the original test. Students who cheat, talk, or communicate with each other during a test will be given a zero for that test . Some type of assessment will be given every week, either test or quiz

Quizzes:

Quizzes are to be expected every week. Quizzes may or may not be announced.

Attendance:

To achieve success in mathematics, it is important for you to attend class regularly. Many students have great difficulty trying to learn math work on their own after an absence. Each day's classwork builds on prior learning. If a student misses just one day, they have difficulty following new assignments. When you are absent, check your mailbox for your assignments. Failure to make up work by the quarter deadlines will result in a grade deduction for that assignment. An absence of one class period will not excuse a student from turning in previously assigned work on the day they return to class.

8 Mathematical Practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

CLASS EXPECTATIONS:

Respect All

- ❖ Allow everyone to have a say.
- ❖ Be aware of others' thoughts, feelings, and personal space.
- ❖ Allow others the opportunity to learn.
- ❖ Use appropriate language.

Make Good Decisions

- ❖ Plan ahead.
- ❖ Communicate openly with teachers.
- ❖ Advocate for yourself.
- ❖ Follow teacher expectations for classroom movement and participation.

Accept Responsibility

- ❖ Follow all directions.
- ❖ Come to class on time and prepared to learn.
- ❖ Turn in assignments on time.

Safety Comes First

- ❖ Notify the teacher when classroom safety is compromised.
- ❖ Keep your hands and feet to yourself.
- ❖ Refrain from horseplay.
- ❖ Keep pathways clear of clutter.

What you should know about Honors Math 3:

1. Math 3 HN is an honors level course. This course is also available in the Program of Studies at the College Preparatory level. Students earning credit for an Honors level course receive an elevated number of Quality Points for their Grade Point Average.
2. Students choosing the Honors level course should be aware that this Honors level course will include:
   a) Required extension opportunities that are directly related to the Standard Course of Study. This includes additional content beyond that covered in the College Preparatory level.
   b) More challenging coursework and assessments. Students will be expected to demonstrate higher levels of understanding for grades.
   c) Projects and presentations will be more in depth.
   d) Students will have to focus and study regularly to master the content.
   e) The expectation that students can move through the coursework at an accelerated pace

The Honors Math III curriculum is designed to prepare students for Pre-Calculus, AP Calculus, and AP Statistics by emphasizing proficiency in calculator and non-calculator problem-solving and applications included in the NC state standards for mathematics. Students will go beyond merely finding solutions and creating functions towards deriving formulas, exploration of complex and open-ended problems, and learning to express/ prove ideas through mathematical discourse. Honors level Math III students will be expected to consistently perform at a higher level than those students enrolled in the regular Math III course. Honors students will be expected to explore mathematical concepts through group work, teacher support and facilitation, and individual student study as they will be asked to gather, analyze, and synthesize related information from multiple sources. These students are expected to be initiators for their own learning and active participants in scholarly and creative learning processes. Organization, risk-taking, complexity, curiosity, and a strong work ethic will be expected for success in Honors Math III.

and students experiencing difficulty should quickly seek guidance from their teacher on how they can be more successful. This course is **honors and is a weighted course**. It is a **rigorous, fast-paced** preparation for Precalculus. f) Student assignment calendars list homework, test dates, and deadlines. (See web site for copy) g) Homework is given nightly for the practice of skills. It may be checked often for 0, 50, or 100 points based on completion and grading of work. The Unit HW grade is the average of these. h) Missing work for excused absences will be averaged in as a one (1) until made up; due within one week.	Students taking Honors Math III are most likely the students who will take Pre-Calculus Honors, as well as, an AP Course in Calculus or Statistics. These students need to be prepared for these upper level courses while mastering the basics of Math III. Through vertical alignment, our math department has chosen several topics that would benefit everyone as they move through the honors math pathway. These extensions are aligned to standards in Math III, Honors Pre-Calculus, AP Calculus, as well as ACT and SAT standards.