

# HALIFAX COUNTY EARLY COLLEGE HIGH SCHOOL

## Course Syllabus

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### Course Information

**Course: NC Math 1**

### **Description:**

NC Math 1 builds upon multiple concepts learned and reinforced in previous school years. Students will add to their knowledge base of linear functions initially to study how quadratic functions behave. A thorough comparison of linear and quadratic function behavior will serve as the basis for introducing polynomial, rational, radical, logarithmic, and trigonometric functions. Modeling real-world data with all of these functions will help students understand how different function types model certain patterns. Systems of equations and inequalities with these various function types will help students grasp the idea of real-world limitations. The students will use coordinates to prove simple geometric theorems algebraically. Finally, students will discuss probability and extend to more rigorous considerations of probability.

**Textbooks:** Savvas Realize EnVision Integrated Mathematics I

### **Supplies:**

- \* Students will use online Desmos graphing Calculator.
- \*TI-84 Calculator (School will provide, please contact Ms. Singh for pickup information)
- \*#2 pencils with erasers, or dark-colored pens with white-out
- \*different colored pens for annotating and correcting work
- \* glue sticks
- \*Notebooks for assignments, Do-Nows and Exit Tickets, that must be submitted for grading.

### Instructor Information

**Instructor's Name:**

**Mrs Monica Singh**

**1-Mail Address:**

**singhm@ec.halifax.k12.nc.us**

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### Office Information

**Location:** 500 Building Room 506  
**Campus:** HCC – Halifax Community College  
**Address:** 500 College Dr.

**City, State, Zip:** Weldon, NC 27890  
**Tutoring Hours:** 8.30 am to 9.55am , 10.00am. to 11.25 and 12.00pm to 1.25 pm  
Monday through Friday.

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### Student Learning Outcomes

At the completion of the course, the students should be able to do the following:

1. Model and solve real world problems with quadratic, polynomial, rational, radical, exponential, functions.
2. Use systems of equations and inequalities to model and solve real world problems.
3. Translate a wide variety of geometric shapes in the coordinate plane and analyze the area and volume of those shapes in the context of real world applications.
4. Master properties of coordinates to prove simple geometric theorems algebraically
5. Use frequency models and probability to analyze data and make predictions.

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### Grading Policy

#### Grading Scale

Grade	Requirement
A	90 – 100
B	80 – 89
C	70 – 79
D	60 – 69
F	Below 60

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**Evaluation of Performance**

<b>Tests</b>	<b>25%</b>
<b>Class work</b>	<b>35%</b>
<b>Home work</b>	<b>15%</b>
<b>Quizzes</b>	<b>10%</b>
<b>Project</b>	<b>15%</b>
<b>Total</b>	<b>100%</b>

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**Policies and Information:**

**Pacing Guide**

1. Rules and properties of exponents.  
rewriting expressions as radicals and vice versa
2. Single variable equations expressions and inequalities.  
graphing equations. (slope and y intercept form, slope and point form)
3. Polynomials
  - a) addition and subtraction
  - b) multiplication.
  - c) algebraic Identities
4. Two variable equations and graphs.
5. System of equations and inequalities.
6. Factoring
7. Functions - Understand the concept of a function and use function notation  
Interpret functions that arise in applications in terms of a context Build a function  
that models a relationship between two quantities Properties of exponential  
functions
8. (compound interest, growth and decay)
9. Quadratic equations and graphs.
10. Properties of functions and coordinates.
11. Statistics and Probability: - Inference and conclusion from data.

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### **Classroom Expectations**

Students are expected to come to class on time and prepared. Before class begins, students should silence their cell phones(or any other electronic devices) and put them away. At the start of class, students should report to their seats, be prepared to turn in homework, and immediately begin their Warm-up.

### **Virtual Class Expectations**

- \*Be on time for class
- \*Traditional behavior, dress code, and other classroom expectations apply
- \*Be on mute unless you are given permission to speak (Answering a direct question, asking questions during designated times, designated class discussions) to reduce background noise during lessons
- \*VIDEO MUST BE ON AT ALL TIMES (unless given permission by teacher to go off video)
- \*Classes will be recorded, so please behave accordingly to preserve your own privacy

### **Behavior Expectations**

- \*Be on time and ready to begin *before* class starts.
- \*Be polite, soft spoken , respectful and non disruptive.
- \*Respect everyone and everything in the classroom at all times.
- \*You are responsible for you. Decide to be honest, mature, and successful.
- \*No phones, electronics, profanity, food, or drink unless otherwise directed.
- \*Cooperate with all instructions and activities the first time.
- \*Come prepared. Pay attention and be engaged. Ask questions when you don't understand!

### **Homework**

Homework will be assigned almost every night, with few exceptions.

### **Class Attendance**

Students will get the most benefit from their classes if they attend class regularly and are on time for all classes. Students should inform the instructor in advance if they know they are going to miss a class and must take responsibility for getting missed assignments from the teacher or other students.

### **Late Assignments**

It is your responsibility to keep up with assignments and due dates. **Late homework will NOT be accepted.** Missed assignments should be made up within 3 days of returning. For major assignments, points will be deducted per day late, at the teacher's discretion.

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**Subject to Change**

This course syllabus is subject to change as determined by the course instructor. If changes are needed, an addendum to the syllabus will be provided to each student and implementation of changes will be set forth at date that addendum is issued.

*Please sign and date below, indicating that you have read and understood Mrs Singh’s course rules and policies. Tear off this bottom portion and return signed. I look forward to a wonderful semester working, learning, and growing together!*

**Student Name PRINT:** \_\_\_\_\_ **Sign:** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_