CS9
Computer Science 9
Semester course
Pass / Fail - Required for Graduation
Prerequisite: Math 8
This course provides an introduction to computer programming and computational thinking. Throughout
the course we explore the theme of codes and coding, with an eye towards achieving basic programming
literacy. The course is broken into an introduction to computer architecture, NetLogo simulations,
cryptography, and the Python programming language. A final project involving each student's favorite
part of the course is the culmination of our semester.

Texts Used:
Charles Petzold, Code
Al Sweigart, Automate the Boring Stuff with Python

Elective mathematics courses – 11th grade AP Statistics, 12th grade Calculus, AP Calculus (AB or BC),
AP Computer Science, AP Statistics
Please notify your 10th and 11th grade students, so the students and their parents can make their decisions
on course selections for the next school year.
Once again - do we need to modify requirements for the Math electives?

GRADE REQUIREMENTS TO QUALIFY FOR MATH DEPARTMENT ELECTIVES:

- **11th Graders to qualify for Advanced Placement Calculus**
  From 11H to AB: Minimum grade of B for the year (no lower than B– per semester)
  From 11H to BC: Minimum grade of A for the year (no lower than A per semester) + Dept. approval
  From 11E to AB: Minimum grade of B– for the year (no lower than C+ per semester)
  From 11E to BC: Minimum grade of A– for the year (no lower than A– per semester) + Dept. approval

- **To qualify for Advanced Placement Statistics**
  10th Grade: Minimum grade of B (no lower than B per semester)
  11th Grade: Minimum grade of C (no lower than C per semester)
**OCC classes**

Students who have completed and excelled, by earning at least an (A–) each semester, in Advanced Placement BC Calculus by the end of the 11th grade are permitted to attend OCC mathematics courses. This option is recommended only for students who receive a 5 on the Advanced Placement BC Calculus examination. This gives Hunter College High School students the opportunity to further excel in the craft of Problem Solving.

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**SKIPPING THE CALCULUS BC CLASS AT HUNTER AND SIGNING FOR AN OCC MATH CLASS**

The candidates should maintain a grade of an (A+) in their Math 11E class (each semester and for the year). The candidates, while in 11th grade, will have to take the Midterm, and the Final Examination given to the students in our regular AP Calculus BC classes (without attending the classes). Their 1st and 2nd “semester grades” will be determined based on Midterm/Final exam. The 1st and 2nd semester grades will have to be equivalent to at least an (A–) for each semester.

The above requirement should be considered as a cumulative Proficiency Examination for skipping the AP Calculus BC class at Hunter and matching, to some extent, the criterion of grade of an (A–) for each semester, applied to the students talking the AP Calculus BC class here.

The students will also have to earn a score of 5 on the AP Calculus BC examination.

The candidates, who earned a grade equivalent to an (A–) for the 1st and 2nd semester, based on the Hunter AP Calculus BC class Midterm/Final exam, however they could not earn a 5 on the AP Calculus BC examination, instead of an OCC math class, they could take either the AP Statistics or AP Computer Science class offered at our school. The following school year, they can retake the AP Calculus BC and if scored a 5 to qualify for an OCC math class.
ACCELERATION:

- Incoming 7th graders can take a placement test, given in May of their 6th grade, to see if they qualify to accelerate and take Math 8E when they enter our school.

- Students in our E-classes qualify to accelerate (skip a grade) by receiving an A+ for the first semester (or 97% for the 7th graders, who qualified for 8E) and maintain an A+ (97%) average for the spring semester. They must then take the appropriate Proficiency Exam given in June, after the Finals, and the results are evaluated by the department.

TRANSFER FROM ‘H’ TO ‘E’ CLASSES:

- Students in Math 8H and Math 9H who receive an A+ for the first semester and maintain an A+ average throughout the second semester will be evaluated by the department for automatic transfer from H to E.

- Students in Math 10H are not eligible to transfer to Math 11E. However, students in Math 11H will be eligible to take Calculus BC the following year if they meet the appropriate criteria.

- A minimum grade of B for the year is required for students to remain in an E-class.

GRADE REQUIREMENTS TO QUALIFY FOR MATH DEPARTMENT ELECTIVES:

- **11th Graders to qualify for Advanced Placement Calculus**
  
  From 11H to AB: Minimum grade of B for the year (no lower than B– per semester)
  
  From 11H to BC: Minimum grade of A for the year (no lower than A per semester) + Dept. approval
  
  From 11E to AB: Minimum grade of B– for the year (no lower than C+ per semester)
  
  From 11E to BC: Minimum grade of A– for the year (no lower than A– per semester) + Dept. approval

- **To qualify for Advanced Placement Statistics**
  
  10th Grade: Minimum grade of B (no lower than B per semester)
  
  11th Grade: Minimum grade of C (no lower than C per semester)