Questions	Intro To Computer Science 1 L3	A.P. Computer Science A	A.P. Computer Science Principles
Should I take this course?	This course is intended for students who can read and calculate at an L2/L3 Level or are ready to work to do so. If you are planning a career in a STEM (Science, Technology, Engineering, or Mathematics) field and want to dabble in the computer science field. This course focuses on basic computer science structures with a graphics component in the C++ language.	This course is intended for students who can read and calculate at an Advanced Placement Level or are ready to work to do so. If you are planning a career in a STEM (Science, Technology, Engineering, or Mathematics) field, this course focuses on object-oriented programming in Java with an end of the year graphics component.	This course is intended for students who can write and read at an Advanced Placement Level or are ready to work to do so. If you are planning a career in a health or human services field or if you are undecided, this is an introduction to programming along with many other aspects of computer science that are relevant in most every field.
If colleges grant credit for an AP Score, what course does this usually replace?	This course doesn't grant college credit. However STEM is rising and to be able to code a little bit can provide a leg up in any field. Every business uses technology and computing; having an idea of how it works behind the scenes will be beneficial.	This course typically replaces the first semester programming class for a student studying science, technology, engineering, or mathematics.	This course typically replaces the computer science general education requirement for any student that does not have a computer science course required for their degree. Example of degrees that may have this requirement: education, psychology, pre-law, humanities, history, pre-med, or philosophy.
Is there a programming language?	. Yes. C++	Yes. Java	There is no programming language requirement. Typically, this course is taught using a block-based language such as Blockly using AppInventor.
What are the prerequisites?	Successful completion of Geometry L2/L3 with a B or above.	Successful completion of Algebra II L2/L3 with a B or above.	Successful completion of Geometry L2/L3 with a B or above.
What is the exam like?	No AP Exam	The exam is administered in May. Like many other exams, there are two parts: (1) multiple choice and (2) free response questions. The free response questions are handwritten responses to coding questions. Your score is based on both.	The score is based on (1) two performance tasks completed during the school year and (2) a multiple choice exam administered in May.
What is the work like in this course?	There are programming projects that take a varying amount of time. There are daily homework assignments that involve reading and/or interpreting code. As long as you keep up with the daily work, the work load should be no more than 30 min each night.	There are programming projects that take a varying amount of time. There are daily homework assignments that involve reading and/or interpreting code or coding concepts. As long as you keep up with the daily work, the work load should be no more than 45 min each night.	There are programming projects that take a varying amount of time. There are daily homework assignments that involve reading, writing, and reflecting on your new learning. Work is maintained on a google site. As long as you keep up with the daily work, the work load should be no more than 30 min each night.

What questions are answered in this course?	What do number systems have to do with programming? Does the order of operations matter in programming? Why does breaking a problem into verbs (functions) and nouns (variables or constants) help us to think more analytically and solve the problem? Why is interpreting code like solving a challenging but interesting puzzle? How can we apply C++ to solve problems and/or generate new understanding? How is animation (graphics) created?	What do number systems have to do with programming? What does recursion have to do with looping? Why does breaking a problem into verbs (functions) and nouns (variables or constants) help us to think more analytically and solve the problem? Why is interpreting code like solving a challenging but interesting puzzle? How can we apply java to solve problems and/or generate new understanding? Why are methods like functions? What does function composition look like in java? Does the order of operations matter in programming? Why does computing either hardware or software revolve around Boolean Algebra? How is animation(graphics) created?	How does the internet work? What does it have to do with us? What impact does the digital revolution have on our lives? How can we analytically research innovations that mean something to us? How can we use programming and/or technology to create something to convey meaning that cannot be described analytically? Why is reading coding blocks like solving a puzzle? How can we apply a block-based language to solve problems? Why is programming a metaphor? What is the Big Data problem and why does this matter? What do integrated circuits have to do with Boolean Algebra? Why does every person need to have some exposure to programming to be a digital citizen? What does geometry have to do with the internet?
What questions are answered in all computer science course?	How can you use a programming language to solve a problem and/or to understand our world? How can you work with another person to do more than you can do alone? How can you take a big problem and break it into smaller parts? Why is your mind the most important computer? What is an algorithm and how can this be applied to using a computer to solve problems? What are the building blocks of any language (order, conditionals, and looping)? Why are creative people drawn to programming? How can you learn by doing? Why does programming help you learn?		
How do I sign up?		Talk with your math teacher. He or she will recommend you to take this course in addition to your next math course.	
Who should I contact for more information?		Mr. Hughes, Rm 302, nhhscomputerscience.com or hughes.daniel@north-haven.k12.ct.us	