Computer Science AP A Accelerated

Course Number: 172251   Pre-requisites: Computer Science 1

Instructor: Mr. Barry Wagner
E-Mail Address: bwagner@dentonisd.org
Planning Periods: B3, B4
Phone: 940-369-2067
Tutorials: M-Th 4:10 – 4:50

Course Objectives and Goals:

At DHS the AP A Computer Science course is a two-year program. Students take Honors Computer Science the first year and AP Computer Science the second year. The AP A Accelerated course is designed to allow highly motivated senior students the ability to take the entire program in one year. The first semester of the course covers the Honors objectives and the second semester covers the AP A objectives.

Resources:

Web-based curriculum (http://bwagner.org)
How to Prepare for the AP Computer Science AP Exam - Barron's

Grading Policy:

- Refer to the School Districts Approved Grading Policy

Rules/Class Procedures:

1. Be on time.
2. Complete labs in the time allotted.
    - If a student falls behind the pace of the course, then after school tutorials are available to help him or her get caught up.
3. This Computer lab is for learning computer science and computer programming.
    - Students must complete all assignments before doing work for other classes.
    - Students must complete all assignments before playing on the Internet.
    - Students may only use cell phones the last **10 minutes** of class or if they have completed all assignments.
    - An assignment is not complete until it is recorded on teacher's clipboard or placed in the assignment box.
4. Do not install any software on a computer in this lab.
5. Do not use a **proxy server** to by-pass school district filtering.
6. Stay in your seat until the bell rings or it is time to dismiss.
7. Peer tutoring is encouraged.

Scope:

1. Introduction to Computer Science
2. Java Basics
3. Computer Terminology
4. Java Control Statements
   - Selection
   - Iteration
5. Classes and Objects
6. Intro to Arrays
7. Object-Oriented Programming
   - Encapsulation
   - Polymorphism
   - Inheritance
8. Searching
   - Sequential Search
   - Binary Search
9. Sorting
   - Selection Sort
   - Insertion Sort
   - Merge Sort
10. Arrays and ArrayLists
    - Create
    - Insert
    - Traverse
    - Delete
14. Recursion
15. AP Test Preparation

Please sign, detach, and return the bottom portion of this form.

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"I, _____, parent/guardian of _____ have read

and understand the syllabus for XXX class. "

Parent/Guardian:_____   _____
                        Signature   Date
Student:_____   _____
                        Signature   Date