AP Computer Science A

Morton High School

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AP Computer Science A at a Glance

Computer Science A is an introduction to object-oriented programming in java equivalent to a typical first semester introduction to computer science course at the university level. The focus of the course is to give students a rigorous introduction to the java programming language while also cultivating problem solving and critical thinking skills.

Topics Covered:

Primitive Types, Using Objects, Boolean Expressions and if Statements, Iteration, Writing Classes, Arrays, ArrayLists, 2D Arrays, Inheritance, and Recursion

Available Resources

Videos covering class content as well as starter code and autograders are available to the students through Youtube, GitHub, and CodeHS.

Absences

Students need to take the initiative to find out what was missed in class after an absence. Please consult the Class Diary before asking questions. Emails are much appreciated if there is confusion about notes, assignments or the student's absences leading up to an assessment.

Grading Procedures

A Total points system is used to calculate grades. Grades are determined by dividing an individual student's accumulated point total by the total number of points possible.

Tests: ……..... 50 points
Machine Problems: ..……. 10-20 points
Quizzes: …… 5-10 points
Homework: ……... 5-20 points

Homework is completed through CodeHS. Problems are assigned for each topic but are graded at the end of the unit.

Machine Problems are larger coding tasks assigned and turned in through GitHub. Students are generally provided with an autograder to assess their program before their final commit.

Quizzes and Tests are not able to be retaken.

Academic Assistance

Mr. Zeller is available primarily before school.
Appointments help in making sure that Mr. Zeller is available and can give the appropriate assistance. Students must ask for assistance via email (*preferred*) or during class. I am always happy to work with students when they need assistance, **but students need to be proactive so that they can get help when they need it.**

Classroom Norms for Technology

In the computer science classroom students will have access to laptop computers to complete notes and coursework and in some cases conduct research. It is the expectation that students use these devices responsibly and for their intended purpose. PHONES WILL BE SILENT AND PUT AWAY UNLESS GIVEN PERMISSION. Failure to follow these norms may result in referral and/or confiscation of device.

Supplies Needed

- Paper
- Pencils

Helpful Websites

PowerSchool is an excellent way to stay on top of your grades, tardies, and absences:
https://ps1.morton709.org/public/home.html

GitHub is where MPs will be posted and collected:
https://github.com/

CodeHS is where homework will be assigned and graded:
https://codehs.com/

Class Expectations

a. Students are expected to be active participants in the learning process. This includes participating in class discussions, thinking about questions posed by the teacher and by classmates, construct viable mathematical arguments, and to help create an atmosphere that is conducive to learning.

b. Students are expected to be responsible students. Responsible students are ready to learn throughout class by having required materials, being respectful of others and self, and being focused on computer science. Students are also expected to complete assigned tasks (homework, class work, and other assignments), and seek extra help from the classroom teacher, as needed. Furthermore, responsible students will correct mistakes on homework and quizzes and will do their best to learn for understanding.

c. Students are expected to show knowledge of all course objectives and apply that knowledge to real world situations. Furthermore, retention of material beyond the unit assessments in necessary. Students are expected to apply previously learned content to new content to strengthen their understanding.

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