AP Computer Science Principles

Highland Park High School, Math Department

2019-2020

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Text/Resources:

http://Code.studio.org
Tubes, Andew Blum
9 Algorithms that Changed the Future, John MacCormick
Blown to Bits, Hal Abelson, http://www.bitsbook.com/
Big Data, Kenneth Cukier
They Know Everything About You, Scheer
www.w3schools.com OR Any JavaScript book
CS Unplugged Curriculum, Carnegie Mellon, http://csunplugged.org/

Description:

This course is a full-year, rigorous, entry-level course that introduces you to the foundations of modern computing. The course covers a broad range of foundational topics such as programming, algorithms, the Internet, big data, digital privacy and security, and the societal impacts of computing. **from code.org

Instructional Materials:

Pen or Pencil (no red ink will be accepted)
3-ring binder – 6 dividers for each unit
Loose leaf paper or spiral notebook to take notes

Assignments, Homework, and Grading:

Homework will be assigned on a regular basis and turned in electronically or in class (unplugged).

Quizzes and exams will be given regularly. Quizzes will occur weekly and be graded quizzes will be returned in class. Exams will occur every 3-5 weeks after the completion of a unit and graded exams will be housed in the TLC for your review. There are no retakes for exams.

There will be a final exam and/or project given at the end of the semester.

Class participation and group work is expected, however plagiarism is not.

Plagiarism/Academic Offenses:

Any student found cheating or copying from another student's work or found to have plagiarized from other material (or using any materials for an assignment not completed by that student) will not receive credit for the assignment in question, and may face further disciplinary action according to school policy.

Attendance and Punctuality:

This is a rigorous course, and your attendance and punctuality are critical to your success in this course. While the curriculum itself is found code.org, the meat of the content is brought to life through the rich discussions, questions and answers that occur DURING class time. Those experiences cannot be made-up or reinvented… so make every effort to be in class and on time. Repeated tardiness or absences will be dealt with according to school policy.

Communication:

You are expected to check your student e-mail and our Schoology site regularly for grade postings and announcements regarding assignment and schedule changes. Because many documents will be distributed electronically, you must inform me immediately if there is a problem retrieving them. Problems with due dates and exams must be discussed with me before the exam date or due date. Student athletes and those who will not be in class due to a planned absence need to turn in work prior to leaving. The best way to reach me is through e-mail, which I check at least once a day. Leaving a voice mail is the second-best option. If you have a concern or question you need to discuss at length, please contact me to set up an appointment.

Course Schedule:

Week	Topic	Reading
5 Weeks	Unit 1: the Internet	Code.org Tubes, Andew Blum
6 Weeks	Unit 2: Digital Information	Code.org Blown to Bits, Hal Abelson
4 Weeks	Unit 3: Algorithms & Programming	Code.org 9 Algorithms that Changed the Future, John MacCormick
7 Weeks	Unit 5: Building APPs (Javascript)	Code.org Any Javascript book W3schools.com
4 Weeks	Create Performance Task (AP Programming Portfolio Submission)	Code.org AP College Board Site
4 Weeks	Unit 4: Data & Privacy	Code.org Wired.com Big Data, Kenneth Cukier They Know Everything About You, Scheer
1 Week	Explore Performance Task	Code.org AP College Board Site
Review for AP Exam on May 15, 2020		

Semester Grades:

Category	Percentage
Homework	10%

- • Includes daily reflections
- • Includes lab completions (widget, apps, online work)

Assessments	70%

- • Weekly quizzes
- • Unit Exams
- • Explore PT Practice
- • Create PT Practice

Final Exam/Project	20%
Total	**100%**