



AP Expectations Night

AP Computer Science A (aka "APCSA")

CONTACT INFORMATION:

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RECOMMENDED AP COMPUTER SCIENCE TEST REVIEW BOOK:

TITLE: Barron's AP Computer Science A, 9th Edition by Roselyn Teukolsky
COST: \$13.69 new as of 05-28-2020
AMAZON LINK: <https://amzn.to/3gxDoDz>
ISBN: ISBN-10: 1438012896 ISBN-13: 978-1438012896

NOTE: *While this book is optional, it is recommended for students taking the exam, and for those that want extra help.*

WHY SHOULD YOU TAKE COMPUTER SCIENCE?

- Computer Science combines math, science, logic, language arts, and artistic design skills all into one package
- "Everybody in this country should learn how to program a computer because it teaches you how to think." -- Steve Jobs
- "What most schools don't teach" video <https://bit.ly/36lwwuK>
- Code.org discussion of Computer Science <http://code.org/promote>

BASIC COURSE CONTENT:

- Karel J Robot, Intro To Java (03 weeks)
- ICT AP Comp Sci curriculum + CollegeBoard AP Classroom (25 weeks)
- AP Picture Lab + AP exam review (+/- 06 weeks)
- Robotics programming using Finch robots (+/- 04 weeks, after AP exam)

YOU WILL BE SUCCESSFUL IN AP COMP SCI IF YOU:

- Are willing to think and solve problems for yourself
- Are here every single day without fail, and don't miss often due to "conflicts"
- Are willing to occasionally struggle with code until you work it out and get it right
- Have a sufficient math and science background. The more, the better!
- Are self-motivated, comfortable with computers, and able to work at a high level of thought
- Lean towards a career in technology, computers, math, science, engineering, etc.
- Know how to study for, and take "problem solving" quizzes

SUMMER HOMEWORK:

There is no **specific/required/graded summer homework packet for AP Computer Science A**. Learning the Java language is best done together in class, where we can deal with errors and problems as a team. **However**, if you have not programmed in the past, or if your math / science / logic skills are not as strong as they should be, consider practicing with one or more of these tutorials. I have listed these in order of preference:

1. **Kahn Academy Intro to JS Drawing and Animation** <https://bit.ly/1vwAtR0>
(JavaScript is not Java, but this is a nice intro to programming)
2. **Learn Java 8 – FreeCodeCamp.org video tutorial** <https://bit.ly/3c6VDfC>
(9+ hour YouTube video, great summary of Java)
3. **CodingBat (Java practice coding problems)** <http://codingbat.com/java>
(A great way to practice Java coding, don't do Maps !)

SHOULD FRESHMEN OR SOPHOMORE STUDENTS TAKE THIS CLASS?

This class is open to all grade levels of YLHS students who are prepared for college level work.

- Has the student successfully completed AP Computer Science Principles?
- Has the student taken advanced math and/or science classes?
- Has the student coded in the past at any level, including middle school, calculators, web pages (JavaScript), etc?
- Is the student passionate about technology, coding, and computers?
- Is the student planning a career in Computer Science, Networking, App Development, Engineering, Science, etc?
- Is this a strong student who adapts well to difficult courses?
- Does the student fully appreciate that this is a college course? Are they ready for college level work?
- Statistically, most of the students who drop this class are either Freshmen or Seniors
- Priority may be given to Juniors and Seniors if space is limited.

PREVIOUS AP COMPUTER SCIENCE STUDENT SUGGESTIONS:

If you could give advice to incoming AP Computer Science students, what would it be?

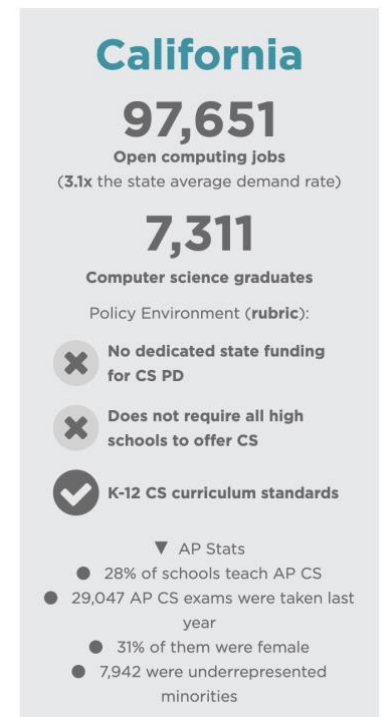
- "Study for quizzes"
- "Stay focused"
- "Don't miss class!"
- "Read the project before you do it"
- "Try to solve it on your own before getting help"
- "Don't be afraid to ask Mr. Eliot questions"
- "Take advantage of lunch and after school lab time to get caught up"
- "Walk through the code line by line if you are stuck"
- "Pick a good seat, pick good teams, and groups. Don't talk all period"
- "Be the code, understand the code, defeat the code"
- "Don't underestimate AP Comp Sci. It starts easy, but gets much harder before you know it!"

AP COMPUTER SCIENCE A EXAM INFORMATION (estimated, not all info posted yet):

<https://apstudents.collegeboard.org/exam-policies-guidelines/exam-fees>

- The 2021 exam cost is \$94 if purchased by November 13th
- Exams ordered between November 14th and March 11th have a late fee of \$40
- The unused or canceled exam fee is \$40
- The **AP Computer Science A** exam is Thursday, May 6th, 2021 in the afternoon

YOUR QUESTIONS AND COMMENTS?



<https://code.org/promote/>

Thursday, May 28, 2020 page #2