



# AP Expectations Night

AP Computer Science A (aka "APCS-A")

## CONTACT INFORMATION:

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## OPTIONAL AP COMPUTER SCIENCE A REVIEW BOOK:

TITLE: Barron's AP Computer Science A Premium 2022-2023 by Roselyn Teukolsky  
COST: \$22.49 new as of 05-23-2022  
AMAZON LINK: <https://amzn.to/3wDmDRg>

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

## 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 (+/- 04 weeks)
- Robotics Java programming using Finch robots **OR** Webots (+/- 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 coded before, 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** first?
- 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.

## **FORMER AP COMPUTER SCIENCE STUDENTS OFFER 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 just 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!"

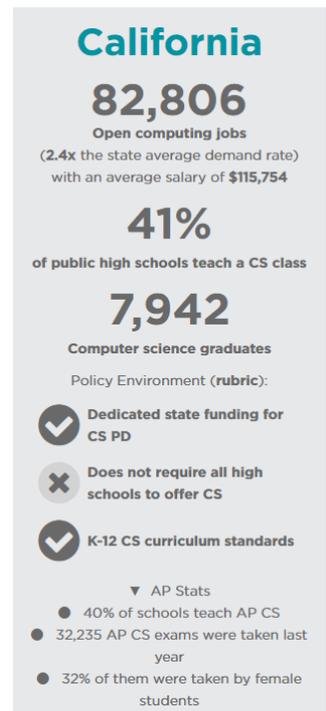
## **AP COMPUTER SCIENCE A EXAM INFORMATION (estimated, not all info posted yet):**

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

- The 2023 exam cost is +/- \$95 if purchased by mid November
- Exams ordered between mid November and mid March have a late fee of \$40
- The unused or canceled exam fee is \$40
- The **AP Computer Science A** written exam is at 12:00pm on Friday, May 12<sup>th</sup>, 2023

## **YOUR QUESTIONS AND COMMENTS?**

**Please email: [deliot@pylusd.org](mailto:deliot@pylusd.org)**



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