



AP Information Night

AP Computer Science A (aka "AP Comp Sci.")

CONTACT INFORMATION:

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RECOMMENDED AP COMPUTER SCIENCE TEST REVIEW BOOK:

TITLE: Barron's AP Computer Science A, 7th Edition by Roselyn Teukolsky
COST: \$10.69 as of 05-31-2017
LINK: <https://goo.gl/fiyOP6>
ISBN: ISBN-10: 1438005946 ISBN-13: 978-1438005942

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

WHY SHOULD YOU TAKE COMPUTER SCIENCE?

- Computer Science combines math, science, art, logic, and language arts all into one area of study.
- "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 <http://bit.ly/J60cKe>
- Code.org discussion of Computer Science <http://code.org/promote>
- "Three of the Top 10 jobs in OC are in IT" <http://bit.ly/1gAPEC6>

BASIC COURSE CONTENT:

- Karel J Robot, Intro To Java (03 weeks)
- ICT AP Computer Science A curriculum lessons (26 weeks)
- AP Picture Lab + AP exam review (+/- 05 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 do for yourself, and not have others think and solve problems for you
- Are here every single day without fail
- 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.

SUMMER HOMEWORK:

There is no specific summer homework packet for AP Computer Science. 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 you would like, consider practicing with one or more of these programming environments. I have listed these in order of preference:

1. Kahn Academy JavaScript Programming Tutorial <https://goo.gl/5u1fuj>
2. Code.org 20 hour basic course <http://studio.code.org/s/20-hour>
3. Udemy Decoding AP Computer Science A <https://goo.gl/uiQECa>
4. MIT App Inventor <http://appinventor.mit.edu/explore/>
5. Scratch <http://scratch.mit.edu/>
6. Processing <http://processing.org/>
7. CodingBat (Java Practice) <http://codingbat.com/java>

RECOMMENDATIONS FROM PREVIOUS AP COMPUTER SCIENCE STUDENTS

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
- Walk through the code line by line
- Pick a good seat, pick good teams and groups
- "Be the code, understand the code, defeat the code"
- "Don't underestimate AP Comp Sci. It starts easy, but gets much harder."

YOUR QUESTIONS AND COMMENTS?