

# Canyon Crest Academy: AP Computer Science A

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Level of Difficulty	Estimated Homework	Prerequisites
<input type="checkbox"/> Moderate <input type="checkbox"/> Difficult <input checked="" type="checkbox"/> Very Difficult	90-120 minutes	<b>District</b> None  <b>Department</b> Grade 11 & 12, Integrated Math II and either Exploring Computer Science or AP Computer Science Principles.

## Course Description

AP<sup>®</sup> Computer Science A is both a college course for potential computer science majors and a foundation course for students planning to study in other technical fields such as engineering, physics, chemistry, and geology. The course emphasizes programming methodology, procedural abstraction, and in-depth study of algorithms, data structures, and data abstractions, as well as a detailed examination of a large case study program (GridWorld). The course is divided into units of study which contain readings and exercises from the book, programming projects, and an end of unit exam. Instruction also includes preparation for the AP Computer Science A exam.

Units: Java Based Programming

- 2 - Introduction to Objects
- 3 - Programming Fundamentals
- 4 - Arrays and an Introduction to algorithms
- 5 - An Introduction to Class Design
- 6 - Testing and Debugging
- 7 - Interfaces and Inheritance
- 8 - Algorithms
- 9 - Computing and Society

## Grading

Projects ( Each Unit – A or B Level of Difficulty)-(30%), Journal (Review Questions)-(10%), and Labs and Practice (In-Class, At-Home, On Line)-(20%), Exams ( End of Unit )-(40%).

## Syllabus Link

Contact Teacher

## Supplemental Information

10 credits

Meets high school graduation requirement for Practical Art or Elective credit

Meets CSU/UC subject area "g" requirement

Weighted grade