

AP COMPUTER SCIENCE A

Requirement area: **CTE, Math, Science or Elective**

Course code: VCS300

Grade Level: 10, 11, 12

Prerequisite: Successful completion of Introduction to Computer Science Principles or Instructor permission

Length: Year long (1.0 credit)

Homework: 3-5 hours per week

Designator: NCAA

Description: AP Computer Science A is equivalent to a first-semester college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data, (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small simple problems to large complex problems. The AP Computer Science A course curriculum is compatible with many CSI courses in colleges and universities.