



## **Val Tech and Cyber Defense/Security Valencia Academy**

### **Description**

Cyber Security and Cyber Defense means acting in anticipation to oppose an attack against computers and networks. High schools and universities are in the process of developing cyber security pathways and degrees in response to the growth of career opportunities in cybersecurity.

U.S. News and World Report (May, 2016) stated that the profession is growing at a rate of 36.5% through 2022. Many information security analysts enter the job market with a bachelor's degree in computer science with an ICT or cybersecurity specialty, programming or engineering.

### **Proposed Pathway**

Valencia High School currently offers six CTE pathways within Val Tech. A CTE pathway consists of an Introductory class, a concentrated class, and a capstone course.

For Cyber Defense, the pathway incorporates existing courses at VHS in AP Computer Science Principles, Networking (CIDI 1-4) and a capstone course in AP or IB Comp Sci, the Val Tech Internship and participation in academic competition.

CCNA Security Curriculum is incorporated into the Networking (CIDI) coursework for those that complete the introductory courses. Digital forensics will be incorporate into the courses as appropriate. This emerging field offers exciting curriculum changes to existing courses.

### **Success**

Our successful Cyber Patriot Team is offered as an academic competition in cyber defense.

CyberPatriot is the National Youth Cyber Education Program and was conceived by the Air Force Association (AFA) to inspire high school students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. VHS had five teams compete including high school teams and a middle school team.

In March 2016, Valencia High School CyberPatriot Team won the 1st Place West Region Award. Team practices run through the summer to cover scripting and defensive strategies for upcoming Cyber Patriot competitions.

**Please contact Dwight Osborne at [dosborne@pylusd.org](mailto:dosborne@pylusd.org) for more information about opportunities in Cyber Security and Defense.**