GENERAL INFORMATION

- All eighth grade students in Hunterdon County are eligible to apply. Out of county students will be considered based on availability of seats.

- Individuals interested in Computer Science are highly encouraged to apply, however, prior experience is not necessary.

- Acceptance into the program will be based on placement test scores, attendance, discipline records, 7th & 8th grade grades, and an interview.

- Students will be bused from their home to Delaware Valley Regional High School (DVRHS), where the program is held. Home schools are responsible for transportation.

- The Academy program is designed for students to attend DVRHS the entire day and for all four years of high school.

- Each CSSEA class is equivalent to one scheduled block.

- There are no fees for this program. The start up costs have been covered by grant funds and tuition is charged to the home school.

- After completing all the courses and academics necessary for graduation, students will graduate from the Computer Science & Software Engineering Academy.

- Students participate in sports and extracurricular activities at DVRHS.

- Students will be eligible to earn AP credit, as well as college credits from at least one or more NJ colleges. Colleges may require a discounted tuition fee.

FOR MORE INFORMATION

Mr. Daniel Sexton
Communications Officer
Phone: (908) 788-1119 ext. 2024
Email: dsexton@hcvsd.org

WWW.HCVSD.ORG

There are nearly half a million open tech jobs in the US today, and that number is projected to more than double within the next 4 years.

– whitehouse.gov

Women constitute 47% of the overall workforce, but only 27% of the Science & Engineering workforce.

– National Science Board

COMPUTER SCIENCE AND SOFTWARE ENGINEERING ACADEMY

WWW.HCVSD.ORG

COMPUTER SCIENCE

Computer Science & Software Engineering Academy

The Computer Science and Software Engineering Academy (CSSEA) employs a rigorous, highly focused four-year program for students with career interests in Computer Science. The CSSEA utilizes Project Lead The Way's curriculum. This curriculum provides students with education in various platforms and coding languages. Students collaborate on team projects that emulate real-world career tasks. Students are also exposed to specializations in Computer Science, such as simulation and modeling, artificial intelligence, and cybersecurity. The curriculum culminates in students completing a capstone project, where teams of students will design and deliver software solutions to real-world problems.

CSSEA students take academic courses through Delaware Valley Regional High School (DVRHS). DVRHS offers a wide range of coursework in their program of studies, including many Honors and AP options.

The CSSEA program of study also includes structured learning experiences and partnerships with multiple colleges and universities, including Kean University, Rutgers University, Rowan University, and Raritan Valley Community College.

PROGRAMS

Grade 9: Computer Science and Software Engineering

Students will be introduced to a variety of topics in their first year, including algorithms, graphics, graphical user interfaces, basic control circuits, and simulation and modeling. Students will also experiment with Scratch, App Inventor, Python, and NetLogo.

Grade 10: Computer Science Principles

The second year of the curriculum will focus on the Internet, introducing students to protocols and bandwidth, security and cryptography, languages such as HTML5, CSS, databases, SQL, PHP, and JavaScript, visualizing data, Firefox, and Python. In addition, this course will prepare students for the AP Computer Science Principles exam.

Grade 11: Computer Science A

In their third year, students will focus on further developing their computational thinking skills through the medium of Android™ App development for mobile platforms. The course utilizes industry-standard tools such as Android Studio, Java™ programming language, XML, and device emulators. This course prepares students for the AP Computer Science A exam.

Grade 12: Cybersecurity

Students will be introduced to the tools and concepts of cybersecurity and are encouraged to create solutions that allow people to share computing resources while protecting privacy. This course also raises students' knowledge of and commitment to ethical computing behavior.