Introduction: From Coding Club to Classroom

Pritzker College Prep (PCP), an expansion campus of the Noble Network Charter Schools, consists of about 1,000 students. Four years ago, science teacher Caroline Schwartz became interested in coding, starting an afterschool coding club at PCP. “I loved computer science, and really wanted my students to have the opportunity to learn,” she described. Schwartz began to teach herself programming, relaying the knowledge on to her students. She soon realized that her students needed more critical thinking and logical problem solving experience, and began to fight for a real computer science class. After some online searching, she found Edhesive. While it was difficult to incorporate new courses outside of the required curriculum, Schwartz worked together with PCP’s administration, to date integrating Intro CS (Python), Explorations in Coding, and AP CSA through Edhesive.
Implementation and Success at Pritzker College Prep

“This year, every 9th grade student is taking computer science. We’ve integrated it into our science coursework, so they’re taking half physics and half computer science,” explained Schwartz. Total, there are 270 freshman enrolled in Intro CS for the semester. “The students are liking the course. Even the students who aren’t as interested in computer science find that they’re learning a great deal. A handful are already considering careers in computer science,” Schwartz informed. She stresses the importance of computer science education for all of her students, discussing career opportunities and real-world applications during class. “In my opinion, problem solving is the most valuable benefit of CS education. For example, when students believe they’ve completed a program correctly, but something isn’t running right, they have to learn to work the problem all the way through. The tenacity to be patient when it’s frustrating, and finding the missing capital or the small error in the code, very well complements what the students are learning in physics.” stated Schwartz.

Schwartz finds that the video instruction in Intro CS allows students to take the course at their own pace, giving them a sense of time-management that is generally only experienced in college. “They can rewind, pause, and take notes, leaving me to use my time for troubleshooting, or helping students with individual problems. The automatic grading feature is incredibly helpful, as well – if I had to grade 270 students’ practices individually, I wouldn’t have time for anything else,” she added. Schwartz also believes that Intro CS can teach students to work in steps and collaborate when needed. “When they’re stuck, I encourage them to use each other to find a solution. My two favorite phrases are figure it out, and follow directions.”

At the end of each semester, Schwartz has her students take a survey to see if they’re interested in continuing with computer science. “It’s impossible to know which students will excel at the beginning of the course. Kids that are great at math can struggle while kids that hate math can succeed. The great thing is that any student can succeed if they put in work and remain patient and detail oriented.” Schwartz is working to incorporate even more computer science coursework into not only the high school, but the district. “Some students are starting as young as elementary school. Setting up the values and concepts so early is a huge benefit to students who are interested in the AP courses later on. When they’re given access to consecutive coursework, they keep their passion all the way through high school.”
Reflection

“When I hear of another school who is considering adding computer science courses, I always recommend Edhesive,” Schwartz shared. “On top of the videos, automatic grading, and accessibility, the support staff is helpful beyond belief. Anytime I’ve had a question, I’ve received timely, invaluable support,” she mentioned. From the after school coding club, PCP has built their computer science curriculum up to three course offerings through Edhesive, and is always looking to expand more. “100% of our 9th graders are taking computer science! They’re being given an invaluable opportunity. I can’t wait to see where the students go from here!”

Outcomes at Pritzker College Prep

- PCP now offers three Edhesive courses, AP CSA, Intro CS (Python), and Explorations in Coding.
- 100% of the freshman at PCP are enrolled in computer science courses this year.
- Many students at PCP are interested in potential careers in computer science.

Highlights for Teachers

- Intro CS teaches problem solving and critical thinking skills that are difficult to gain from other high school courses.
- Code practices are auto graded, giving the teacher more time for one on one interaction with students.
- Computer science coursework gives students the opportunity to discover skills they may not know they have.

Edhesive makes online learning accessible, personal, and meaningful. We combine online instruction from nationally recognized experts with the personal support of local teachers, who offer students face-to-face guidance and support.

Ready to find out what’s possible for your school? Email us at info@edhesive.com today.