



Greetings,

My name is Timothy Clark and I am a teacher in Christopher High's **Computer Science Academy**. Our CS Academy provides 4 years of preparatory classes with hands-on opportunities to learn computer science skills using curriculum developed by **Project Lead The Way (PLTW)**. With each passing day, it becomes more difficult to name something that computer science doesn't touch. No matter if we're flying cross-country, using mobile apps to manage our daily lives, or perching on the edges of our seats at a movie theater, we're surrounded by computer science. The CS Academy empowers students in grades 9-12 to become creators of the technology all around them.

As students work together to design solutions, they learn **computational thinking** – not just how to code – and transform themselves into builders of tech. While most computer science work can be completed in class, it is highly recommended that students have access to a home computer. The CS Academy's series of courses empowers students with in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.

The Computer Science Academy is a rigorous program in high demand and students must **submit an application** to be considered. In addition to the items in the application, students must be in the eighth grade, students must have a 2.50 or better GPA, and successfully promote from middle school; incoming transcripts will be pulled for each student. Please complete the application and submit it with your essay and 2 sealed teacher recommendations.

Applications must include these three parts:

- Application/contract: Complete and sign the application/contract and have it signed by parent/guardian.
- 2 recommendations from current teachers, one must be from a science or math teacher.
- Writing sample required for entry into the program, must be **handwritten**:
 - **Essay Prompt:** In 300-500 words, please explain why you would like to enter the CHS CS Academy. Include your interest in computer science and technology.

You may scan and email them to timothy.clark@gilroyunified.org, attach them to your articulation card and return to your counselor, or you can drop them off at the CHS front office.

Note: the recommendations must arrive in **sealed envelopes**, or teachers may email them to Mr. Clark

The deadline is **February 28, 2020**. Notification letters will be sent March 13, 2020.

Feel free to contact me with any questions!

Sincerely,

Timothy Clark

Teacher, Computer Science

Computer Science Academy – Course Sequencing

<p style="text-align: center;">Freshman Year</p> <p>English 1 or Honors English 1 Math 1 or Math 1+ PE Course 1 Foreign Language 1 Biology or Honors Biology Computer Science Essentials</p>	<p style="text-align: center;">Computer Science Essentials 9th</p> <p>With emphasis on computational thinking and collaboration, CS Essentials provides an excellent entry point for students to begin the PLTW Computer Science K-12 experience. CS Essentials will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students will use visual, block-based programming and transition to text-based programming with languages such as Python. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. CS Essentials helps students create a strong foundation to advance to the next levels in the Computer Science Academy.</p>
<p style="text-align: center;">Sophomore Year*</p> <p>English 2 or Honors English 2 Math 2 or Math 2+ PE Course 2 Foreign Language World History or AP World History Chemistry or Honors Chemistry Computer Science Principles (AP)</p> <p>*Student will need to take a zero period to fit all courses into schedule</p>	<p style="text-align: center;">AP Computer Science Principles 10th</p> <p>Using Python as a primary tool, students explore and become inspired by career paths that utilize computing, discover tools that foster creativity and collaboration, and use what they've learned to tackle challenges like app development and simulation. Using a project-based curriculum, students will collaboratively learn the seven big ideas of computer science: Creativity, Abstraction, Data and Information, Algorithms, Programming, The Internet, and Global Impact.</p> <p>Throughout the year students will develop programs and research projects to prepare them for the Artifacts to submit to their Digital Portfolio as part of the AP Exam which will earn college credit.</p>
<p style="text-align: center;">Junior Year</p> <p>English 3 or AP English Language Math 3 or Math 3+ Foreign Language 3 US History or AP US History Physics or AP Physics Cybersecurity</p>	<p style="text-align: center;">Cybersecurity 11th</p> <p>Introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. In Cybersecurity, students solve problems by understanding and closing the vulnerabilities in computational resources. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.</p>
<p style="text-align: center;">Senior Year</p> <p>English 4 or AP English Literature Math: Trig, AP Calc, AP Stats Gov/Econ Computer Science A (AP) Design Elective Other Elective - Fine Art</p>	<p style="text-align: center;">AP Computer Science A 12th</p> <p>CS A is an advanced course in computer science building on the basic skills learned in CS Principles to teach students authentic Android app development in Java. Students complete activities and projects aligned with the College Board requirements then collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases, as well as creating a game for their friends or an app to serve a real need in their community. The course aims to fully develop Object Oriented Programming skills and will require consummate engagements with the material for success.</p>

Part 1: Computer Science Academy Application/Contract	For office use only: Class of: 2024	Acceptance: Y N Date: _____
Name: Last:	First:	
Address: Street:	City:	Zip Code:
Parent/Guardian Phone Number:	Student's Birth Date:	Gender:
Current Middle School:	GUSD Student ID #:	
Middle School GPA:	Current Math Class:	
Parent Email Address:	Are you requesting a transfer to CHS? requires Intra-District transfer form sent to district office with CSA noted	Yes No

By signing below I understand the following:

- I have carefully read the description of the CS Academy requirements listed, and I understand the expectations and requirements. I am in the 8th grade and meet the recommended prerequisites.
- I have considered the total workload attached to the CS Academy requirements in terms of taking two Advanced Placement level CS courses and in light of my other commitments and activities during the school year. I am willing to meet these increased academic challenges.
- I understand that the computer science courses in the academy include: CS Essentials, AP CS Principles, Cybersecurity, AP CS A. I understand that I am required to take these courses and cannot substitute other technology courses for these required courses.
- I understand that the CS Academy requires that I take a computer science course as my elective each year, and the classes available to me will be limited to the course sequencing for the CS Academy.
- I understand that if I should find one or more of these computer science courses too demanding and wish to drop the course(s), I will not be able to drop the course.
- I also understand that I must pass all math and computer science courses with a C- or better in order to remain in the academy. Receiving a grade lower than a C- will result in the student being dropped from the CS Academy at the end of the school year.

Student Signature: _____ Date: _____

Parent Signature: _____ Date: _____

**Part 2: Student Application for Computer Science Academy
TEACHER RECOMMENDATION # 1**

Due Date: February 28th , 2020

Section 1 to be completed by student:

Student Name: _____

Student ID Number: _____

Middle School Currently Attending: _____

Name of Nominating Teacher: _____

Course Taught: _____

Section 2 to be completed by teacher offering recommendation:

Bearing in mind that the CS Academy demands that each student enroll in multiple high level courses and will require great ability and motivation, please check the appropriate box in the following areas:

	Not Observed	Low	Average	Above Average	Exceptional
Self-Motivation					
Math Skills					
Desire for Knowledge					
Attendance					
Work Ethic					

Additional Comments:

Has the student ever plagiarised an assignment? Yes or No

Would you recommend this student for the Computer Science Academy at CHS? Yes or No

Nominating Teacher's Signature: _____ Date: _____

Please place recommendation in a **SEALED** envelope and return to student. Please put the student's name on front of envelope and **sign** across the back seal. Or you may email it to timothy.clark@gilroyunified.org.

This recommendation is **CONFIDENTIAL** and will not be available for student/parent review.

**Part 2: Student Application for Computer Science Academy
TEACHER RECOMMENDATION # 2**

Due Date: February 28th , 2020

Section 1 to be completed by student:

Student Name: _____

Student ID Number: _____

Middle School Currently Attending: _____

Name of Nominating Teacher: _____

Course Taught: _____

Section 2 to be completed by teacher offering recommendation:

Bearing in mind that the CS Academy demands that each student enroll in multiple high level courses and will require great ability and motivation, please check the appropriate box in the following areas:

	Not Observed	Low	Average	Above Average	Exceptional
Self-Motivation					
Math Skills					
Desire for Knowledge					
Attendance					
Work Ethic					

Additional Comments:

Has the student ever plagiarised an assignment? Yes or No

Would you recommend this student for the Computer Science Academy at CHS? Yes or No

Nominating Teacher's Signature: _____ Date: _____

Please place recommendation in a **SEALED** envelope and return to student. Please put the student's name on front of envelope and **sign** across the back seal. Or you may email it to timothy.clark@gilroyunified.org.

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