Course Syllabus

AP Computer Science Principles

Cypress Ranch High School Teacher: John Cargill

Room: 1562

Tutoring: Tuesdays and Thursdays 2:45 - 3:15

Email Addresses: john.cargill@cfisd.net

Phone Number: 281-373-2300 Prerequisite: Algebra I



A. DESCRIPTION

The AP Computer Science Principles course at Cypress Ranch is based on the UTeach CS Principles course provided by The University of Texas at Austin. It has been designed as a yearlong high school course that fully addresses the seven *Big Ideas* of computer science and six *Computational Thinking Practices*, as specified by the College Board's AP Computer Science Principles curriculum framework.

B. ORGANIZATION

The lessons and materials used throughout this course incorporate Project-Based Learning (PBL), a pedagogical approach that actively engages students in the educational process, improves retention, and develops problem solving, critical thinking, and group communication skills. Through this collaborative, learner-centric approach, students are encouraged to explore the advantages and societal impact of computational technology while developing their own programming and computational thinking skills.

C. COURSE OBJECTIVES

Introduce students to the fundamentals of computing including problem solving, working with data, understanding the Internet, cybersecurity, and programming.

D. COURSE TOPICS

This course focuses on the seven Big Ideas of computer science: Creativity, Abstraction, Data and Information, Algorithms, Programming, The Internet, and Global Impact.

E. REQUIRED SUPPLIES

USB flash drive (16GB minimum recommended)

F. GRADING PLAN

Coursework will be weighted as follows:

Check For Understanding
Relevant Applications
Summative Assessments

G. RETESTING POLICY

Summative Assessments: A student has one opportunity each grading period to retake a summative assessment for which he/she earned a failing grade (a grade below 70).

Relevant Applications: A student has at least one opportunity each grading period to retake a relevant application for which he/she earned a failing grade (a grade below 70).

Check For Understanding: A student has at least one opportunity each grading period to retake a check for understanding for which he/she earned a failing grade (a grade below 70).

For any category, the student will be allowed to improve the grade to a maximum of 70%.

H. LATE WORK POLICY

Work may be submitted late with the following penalties: Ten points per day for up to four days; for a maximum late penalty of 40 points. Late penalties will be deducted from the grade earned.

Depending on the assignment, we may designate that no submissions are allowed after the fourth day, or we may specify a deadline (beyond the four-day grace period) by which the assignment must be submitted to receive a grade. The standing deadline is 7 days after the due date.

Work not submitted will receive a grade of Z, which is calculated as a zero in gradebook. Students may still submit work after a Z is entered, provided it is submitted within the grace period or before the deadline.

A zero (0) will be entered after the four-day grace period or the deadline. Students will not receive credit for work submitted after a 0 is entered.

Students who are absent will have the number of days equal to the number of days missed to complete makeup work. Absences do not extend the deadline. Makeup work is to be completed outside of normal class hours.

I. CLASSROOM RULES OF CONDUCT

- 1. You are expected to be both respectful and courteous.
- 2. Food and beverages are not permitted in the classroom with the exception of bottled water.
- 3. Cell phones are not allowed to be out during class except when being used for instruction. The teacher will inform you when cell phones are to be used.
- 4. Class lab time is expected to be spent in lab work. Lab time is not free time. Attendance and concerted work on assignments are required. Students are expected to work "bell-to-bell".
- 5. Students are expected to be in their seat and ready to begin work when the bell to begin the class rings.

J. YOUR IDEAS, SUGGESTIONS, ETC.

In general, your ideas, comments, suggestions, questions, grade challenges, etc. are welcome. Your discretion in these matters is expected. However, no part of your grade will be based on anything other than your coursework. You are encouraged to take advantage of tutoring should you require help understanding any topics presented. Please ask for help in understanding sooner rather than later, i.e. don't wait until you are lost to ask for help. We may be covering material at a more accelerated rate than you may be accustomed, and it is imperative that you understand each topic as it is presented.

K. SUGGESTIONS FOR SUCCESS

Stay focused during class, complete all labs and projects on time, ask questions, and challenge yourself to go beyond the lab/project assignment requirements.