

Course Syllabus
Computer Science I K
Cypress Ranch High School
Teachers: Cargill/Hulett

Rooms:	1562/1560
Tutoring:	Tuesdays and Thursdays 2:45 - 3:15
Email Addresses:	john.cargill@cfisd.net bryce.hulett@cfisd.net
Phone Number:	281-373-2300
Prerequisite:	Algebra I



A. DESCRIPTION

This course introduces students to automated processing of information, including computer programming. It focuses on providing students the conceptual background necessary to understand and construct programs, including the ability to specify computations, understand evaluation models, and utilize major constructs such as functions and procedures, data storage, conditionals, and looping. At the end of this course, students should be able to read and write small programs in multiple programming languages in response to a given problem or scenario.

B. ORGANIZATION

This is a lecture-lab course in which topics are presented by the teacher, labs and projects are completed in class by the student.

C. COURSE OBJECTIVES

1. Introduce students to the use of computer programming for solving problems.
2. Introduce students to problem solving methodologies that can be applied in any field of study.
3. Introduce students to multiple programming environments.
4. Orient students to the large number of careers that require a programming component.
5. Provide students with opportunities to develop basic programming skills and prepare them for additional studies in computer science.

D. COURSE TOPICS

The course will cover the following topics:

1. Discussing principles of system design such as procedural, object-oriented, and event-driven processes. Understanding modular design, algorithmic and data structure concepts.
2. Developing software solutions using multiple development environments including languages that provide for procedural, object-oriented, and event driven solutions.
3. Discussing and implementing program testing and quality assurance.
4. Implementing methods for troubleshooting syntax and logic problems.
5. Understanding the concepts of integrity and confidentiality as related to technology including business ethics, copyright, and licensing issues.
6. Implementing project solutions by gathering client project needs and requirements, identifying system requirements, generating software specifications, and developing solutions.
7. Recognizing security issues and understanding how to implement procedures to mitigate risks.
8. Identifying careers of personal interest and the accompanying job duties and tasks associated with those careers as well as the education, job skills, and experience required to achieve those career goals.

E. REQUIRED SUPPLIES

USB flash drive (16GB minimum recommended)

F. GRADING PLAN

Coursework will be weighted as follows:

- | | |
|----------------------------|-----|
| 1. Check For Understanding | 20% |
| 2. Relevant Applications | 40% |
| 3. Summative Assessments | 40% |

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 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 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.