AP Computer Science A Application

2026-27 School Year

Course Overview

The Advanced Placement Program enables a student to take a college-level course while still in high school. Computer Science A emphasizes object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent
of a first-semester course in computer science. It also includes the study of data structures and abstraction.
Please familiarize yourself with the curriculum of this course by visiting the following link:

1. https://apstudent.collegeboard.org/apcourse/ap-computer-science a/course-details

Next, please read the following prerequisites and expectations for the course. Both the student and parents must sign that they understand the expectations before the student will be considered as a candidate to take the course.

Prerequisites

This course is open to any students in grades 11 and 12, and to 10th grade students who have successfully completed AP CSP. Others may apply but will need to complete the submission requirements.

Students must have strong logical thinking skills in place and must ***request an evaluation from their Math teacher.*** This request should be made respectfully through email, and the email should be copied to rebeccastacey@mckeelschools.com. The teacher will then be provided with the link for the recommendation.

Submission Requirements*

(*Only required for those who have <u>not </u>taken AP CSP)

Candidates who have not completed the AP CSP curriculum must submit an **original** program with a socially useful purpose.
- This program should highlight your ability to think algorithmically, which is being able to take a larger problem, break it down into smaller parts, and write clear, unambiguous instructions to solve it step-by-step. The program may be as long or short as needed to solve the problem. There are no requirements as to how many blocks or lines of code you need.
- The program may be written in any high-level language, whether blocks-based or text. (NXT-G, EV3-G, Scratch, Alice, Python, Javascript, Java, etc.)
- Please include the following written information:
  - (150 words or less) Explain the main algorithm(s) in your program. Discuss at least two specific lines or a specific block of code that play(s) an important role in your program, and explain how this code contributes to the overall functionality of the program. Make sure to

• identify any examples of iteration and selection in your program.
- ■ (250 words or less) Explain why you want to take AP Computer Science. Include your goals for the future, and how Computer Science could play a part. Why is Computer Science important to you, and why is it important to society, the economy, and culture? Identify a current problem in the field of Computer Science, and explain how it might be solved.

The preceding items must be submitted through email by March 27, 2026, to
rebeccastacey@mckeelschools.com.

Expectations

Homework/Pace/Grading

Because it is a college-level course, the pace will be quick. Students will need to be consistently attentive and on task. ***Many students have the tendency to be off task when using an electronic device. Those students will have difficulty keeping up with the college-level pace of the curriculum.***

Students must be willing to work diligently on all assignments. There will be a **substantial** amount of classwork. Students must use effective time management in class to keep up. Work not completed in class may not receive credit.

Attendance in each class is vital. Students who are absent frequently may struggle. It is expected that the students will do their assignments promptly.

It is vital that students be self-directed problem solvers. Students will routinely deal with frustrating problems in their research, coding, and project design. They must be able to deal with this frustration effectively and proactively. They may need to spend a great deal of time on a particular aspect of their program before it is what they want, so perseverance is a must!

The AP CS A Exam

The course will conclude with a 3-hour final exam in May. There is one section that is 42 multiple choice questions, worth 55% of the total exam score, and one section that is 4 free response questions, worth 45% of the total exam score.

Equipment

It is important that students have access to a laptop or desktop computer at home so that they can work there when necessary. ***An iPad is not sufficient.***

Summer Preparation

Students will receive information about required summer work upon their acceptance.

Agreement/Acknowledgement

If both the student and the parents understand these expectations and are committed to the effort necessary to succeed in AP CS A, please sign below and return to Mrs. Stacey by March 27, 2026.

Please make a copy for your records

Student (Print)_____

Student(Sign) _____   Date _____

Parent(Sign) _____   Date _____

~~~~~~~~~~~~~~~~~~~~~~~~*Do not write below this line*~~~~~~~~~~~~~~~~~~~~~~~~~

Original program submitted to Mrs. Stacey: Yes / No   Date: _____

Math Teacher Recommendation requested: Yes / No   Date: _____