Computer Science Placement and Evaluation Information for May Testing

To best prepare for AP® Computer Science A and the Computer Science Placement Evaluation (CSPE) please read the following carefully:

The Harker Upper School Computer Science Placement Evaluation is intended to identify which of our Computer Science course offerings would be the best match for a given student. The evaluation is for students that believe they have learned the equivalent of our programming courses and are prepared for AP® Computer Science A with Data Structures. Students who take Advanced Programming and earn an A or A+ do not need to take the CSPE to enroll in AP® Computer Science A with Data Structures. Students who have taken either of the Harker programming courses are not eligible to take the CSPE.

This is not a speculative assessment as the **CSPE may be taken only once**. It is for students that truly believe they can demonstrate sufficient programming skills. The CSPE evaluates the maturity of a students' abstract and algorithmic reasoning skills as well as their knowledge of general concepts in computer science (arrays, `ArrayList`, iteration, etc.). It is NOT an assessment of their knowledge of the Java API, but a working knowledge of the Java language syntax and structure is required.

Before a student may take the evaluation, that student has to meet the math prerequisite of Algebra 2/Trig or Honors Algebra 2/Trig.

The CSPE is in the form of multiple-choice and free-response questions. Free-response questions require students to write code.

If a student is interested in AP® Computer Science A with Data Structures, the student should do the summer reading for it by completing the following reading assignments in Barron's AP® Computer Science Premium 2022-2023 or Barron's AP®Computer Science Premium 12th edition listed below. The CSPE covers material in the reading that may not be covered in the Advanced Programming course

```
Introductory Java Language Features .. Chapter 2
Classes and Objects ................... Chapter 3
Inheritance and Polymorphism ......... Chapter 4 (pp. 139-152)
Some Standard Classes ................. Chapter 5 (pp. 171-184)
Arrays and Array Lists ................ Chapter 7 (pp. 239-264)
Recursion ............................. Chapter 8 (pp. 309-317)
```

If a student has not taken Programming or Advanced Programming at Harker and is interested in placing into AP® Computer Science A (non-Data Structures), the student should do the summer reading for it by completing the following reading assignments in Barron's AP® Computer Science Premium 2022-2023 or the latest 12th Edition listed below:

```
Introductory Java Language Features .. Chapter 2
Classes and Objects ................... Chapter 3
```



```
Some Standard Classes ..............  Chapter 5 (Focus on the Math
                                       and String Class Section)
Arrays and Array Lists ..............  Chapter 7 (Focus on one-
                                       dimensional arrays)
```

To prepare students to correctly document their Java code for either of our AP® Computer Science A courses, students should become familiar with the Harker Style Guide:

https://drive.google.com/open?id=1BfezP2mL2Eot0XzptN1OWRje4wUA_xlF.

A student who is placed into AP® Computer Science A with Data Structures must take that course in the fall. CPSE results do not carry-over to future years.

Further information on the Harker computer science courses may be found in the Harker Upper School Course of Study.

The CSPE consists of both multiple choice and free responses questions and is 90 minutes in length.

In order to register for the May CSPE, students need to ensure they have selected AP® Computer Science A with Data Structures in their academic plan on Infinite Campus prior to the deadline; no additional steps are necessary. Students signed up for AP® Computer Science A with Data Structures and who are taking a Harker summer programming course will not sit for the CSPE in May. Students who do take Advanced Programming must earn an A or A+ to be enrolled AP® Computer Science A with Data Structures, otherwise they will be enrolled in AP® Computer Science A (non-Data Structures).