



AP Computer Science
Kehillah Jewish High School

Dr. Zachi Baharav

Room 213

zbaharav@kehillah.org

Course Description

Welcome to AP Computer Science. I am looking forward to an exciting year as we continue the journey moving from the basics of programming into the realm of object oriented paradigm and computer science related algorithms. This will allow us to solve interesting practical problems, as well as improve our problem-solving skills. To this aim, we will pay special attention to common methods and algorithms for solving problems. We will discuss how we identify what we know, what we want to know, looking at special cases, finding patterns, solving using known algorithms and methods, generalizing, verifying and reflecting. Special emphasize will be given to analyzing and improving a solution once one is found. This will improve the performance, robustness, and readability of our programs.

This is an AP course, and will require a significant amount of commitment and effort. Please be prepared!

Please remember: Programming is not always easy, and can be frustrating at times. It is important that you join with positive attitude and willing to learn! We are all a community of learners.

Availability and contacting me

I am open on blocks 1,2,8 and 9, and plan to be available during these times in room 213. Feel free to drop-in, or if you want to secure a specific date/time, Schoology message or email would work well. I am here to help.

Contacting me: Other than in person, the best way to reach me is through email at zbaharav@kehillah.org . I read emails daily on school-days, and will respond within 24-hours.

Required Materials

Textbook

1. “Java Methods”, 3rd AP edition, by Maria Litvin and Gary Litvin. Skylight publishing.
2. We will also purchase, around February, the AP preparation book.

AP test date: Tuesday, May-15, 2018. Noon. (same day as Calculus AB and BC).

<https://apcentral.collegeboard.org/courses/exam-dates-and-fees>

What to bring to class each day

1. Computer (Laptop on which you have installed the IDE, and on which you can write the programs) ← You can either use your own, or let me know and we will arrange for one from the cart. BUT, you need to be consistent with your choice, and will need to have one in class!
2. Writing instruments of your preference (pencil, pen, colors) – The AP exam itself is done without computer, only paper and pencil. Moreover, we will also have activities in class that will require writing.
3. Text book – You will need it in some form. Electronic form is ok.
4. Enthusiasm and willingness to work and engage in class

Detailed course description

(A more detailed syllabus is based on AP-CS equivalent 1442544v1, and is available on Schoology and the web).

The specific material needed for the AP is well defined, and we are expected to cover it by February.

The order of subjects will be close to the following: Intro; Fundamental data types; flow control; Strings; Methods; Arrays and Arrays Lists; Input/Output; Objects and classes; Inheritance and Interfaces; Recursion; Sorting and Searching; Basic data structures; Trees.

Depending on interest and time, we will cover graphics as well.

Academic Integrity

Academic integrity is essential to every academic institution. Students are expected to honor this value by acting honestly in every aspect of their academic lives. Violating academic integrity is contrary to Kehillah’s core values and will be grounds for disciplinary action. Kehillah students are expected to perform and produce their own

work. Substitution of another's work for one's own violates the school's expectation of academic integrity and impedes the intellectual growth of the student.

Academic Dishonesty Includes:

- Presenting as one's own an idea or statement taken in full or in part, or even paraphrased, from some other source – whether another person (such as a tutor or parent), a published work (including electronic and on-line publications), or another student's work.
- Using unauthorized notes or other aids in a test, or copying from or being influenced by another student's work (orally or visually) during a test, quiz, etc., or seeking unauthorized information about a test or quiz.
- Giving unauthorized aid to another student; allowing another student to copy or use one's test, paper, or homework; telling another student what was on a test that could be given to another student at a later time.
- Submitting papers or other work already produced for another course without the approval of both teachers.
- Obtaining help (from a parent, tutor, another teacher, or another student) on homework or take-home tests that exceeds the limits specified by the teacher assigning the work.

The Dean of Students will review the incident and determine the next steps which may include loss of credit for the assignment or test, an academic or disciplinary contract, suspension, and/or expulsion.

Assessment Methods

Grade Weighting

Formal assessments (tests and quizzes) – 40%

Homework – 45%

Timeliness – 10%

Class participation – 5%

1. Homework

We will usually have weekly homework assignments. This means that an assignment will be given once a week with a due date the following week. We will often start working on some of these during class, but it is expected you will need to continue your work on these at home.

2. Class participation

During class, you are expected to take an active part in the process of exploring and practicing. You ALWAYS have the option of saying 'pass' when asked, and skip your turn, and it will not count against you in any way, shape or form. Be sure though that you are not skipping your turn too often. Your answer is not evaluated for correctness, but rather for its intention and involved thought process.

3. Quizzes

Short quizzes (less than 15 minutes, one or two questions) may be given, at the beginning of class. Usually there will NOT be advanced notice on quizzes. If you are late, you will not have an opportunity to make up the quiz, unless the tardy is excused.

4. Tests

Tests will be cumulative throughout the year. At least a week notice will be given, and appropriate accommodations made. I expect to have one test every 3 weeks (end of relevant units in the book).

5. Collaboration

You are welcome (and are encouraged!) to collaborate on homework, challenges, and class assignments, unless specifically otherwise specified.

However, you are required to submit your own original work. In this regard, giving your work for someone else to copy is NOT ok. Describing and explaining your work to them is encouraged.

6. Using web resources

You are expected and encouraged to use the Web as a tool in your learning. There are many very good tutorials available, as well as Java documentation, and examples.

However, you need to clearly understand that COPYING an answer from the Web is plagiarism, and is not accepted. If in doubt, please come and see me first.

Class behavior guidelines

Students are expected to behave according to, and in a manner encouraging, our four commitments:

Our Four Commitments

1. Everyone counts.
2. Everyone has equal access to great learning.
3. Every person's unique talents are valued equally.
4. We take responsibility for ourselves, our learning, and our community.

I expect us all to be courteous and respectful to fellow community members. Specific items for my class:

1. Please NO FOOD or DRINKS in the classroom (during class, or when you come on open-block times).
2. Taking pictures of class material is ok, but no other cell-phone usage.
3. Working on computers and mobile devices when directed is ok, but please no unrelated web-activity.
4. Raising your hand and asking to leave class is ok, but please don't leave without being dismissed.

Timeliness Policy

- a. Assignments are given two separate grades: one on quality/content/ accuracy and the other on timeliness.
- b. Timeliness as a category is 10% of the final semester grade.
- c. Students have five school days past the agreed upon due date to turn in work. Past the five days, assignments are not accepted. At this point, the work receives a zero for both timeliness and content.
- d. If an assignment is submitted by the due date, it receives 100% for timeliness and a separate grade for content. If an assignment is turned in after the due date, but before the five school day window has closed, it receives 60% for timeliness, but may receive up to 100% for the content of the assignment.
- e. Tests and quizzes must also be completed within the five school day window after an excused absence. After the five-day window passes, students are no longer allowed to make up the test or quiz. If students arrange extensions with their teachers, the five-day countdown begins after the agreed-upon due date.

Grading Scale

93-100	A	73-76	C
90-92	A-	70-72	C-
87-89	B+	67-69	D+
83-86	B	63-66	D
80-82	B-	60-62	D-
77-79	C+	Below 60	F

===== Next page is signing page =====

----- Syllabus signing page – Please return to teacher -----

I look forward to an exciting, productive, and enjoyable year.

Student Signature

I have read and understand the course syllabus and will adhere to the expectations of my **AP Computer Science** class.

Name (print): _____ Block: _____

Signature: _____ Date: _____

Parent/ Guardian:

The following information will help me contact you, if the need should arise. Please select any or all of the following contact options:

Phone: _____
email: _____

I prefer to be contacted by way of: _____.

I have read the course syllabus and will contact Dr. Baharav if I have concerns or questions about the progress of my student in **AP Computer Science** class.

Parent/Guardian (print): _____

Signature: _____ Date: _____

===== **End**=====