AP COMPUTER SCIENCE A – SUMMER CHECKLIST

REMIND INSTRUCTIONS

☐ The first document contains instructions for joining the Remind class discussion group. At any time after 7/15/20 and before the first day of school, please follow the instructions and join the group.

SYLLABUS AND COURSE MATERIALS

☐ Document #2 is the course syllabus. Please read it carefully.

☐ You must have a three-ring binder and loose-leaf paper the first day of class.

☐ You must have a flash drive the first day of class.

COURSE GUIDELINES AND ACADEMIC HONESTY GUIDELINES

☐ Please document #3 titled "AP Course Guidelines"

☐ Please read document #4 titled "Academic Honesty Guidelines".

☐ Please read the MOSS letter (document #5).

CONTRACT

☐ Please read and sign the contract (document #6).

☐ Please have a parent or guardian read and sign the contract.

☐ Please bring the signed contract to the first day of class.

remind

Sign up for important updates from Mr. Dominguez.

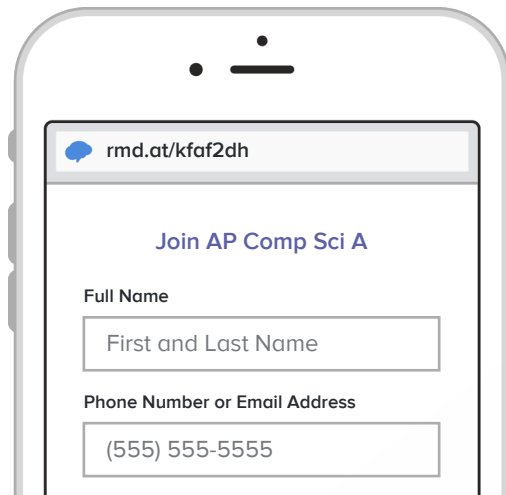Get information for **Everglades High School** right on your phone—not on handouts.

Pick a way to receive messages for **AP Comp Sci A**:

(A) **If you have a smartphone, get push notifications.**

On your iPhone or Android phone, open your web browser and go to the following link:

rmd.at/kfaf2dh

Follow the instructions to sign up for Remind. You'll be prompted to download the mobile app.

rmd.at/kfaf2dh

Join AP Comp Sci A

Full Name

First and Last Name

Phone Number or Email Address

(555) 555-5555

(B) **If you don't have a smartphone, get text notifications.**

Text the message **@kfaf2dh** to the number **81010**.

If you're having trouble with **81010**, try texting **@kfaf2dh** to **(954) 883-9389**.

* Standard text message rates apply.

To

81010

Message

@kfaf2dh

Don't have a mobile phone? Go to **rmd.at/kfaf2dh** on a desktop computer to sign up for email notifications.

Mr. Alberto Dominguez
alberto.dominguez@browardschools.com

AP COMPUTER SCIENCE A

2021 AP Exam Date: Thu May 6, 12:00 noon

Course Description
The AP Computer Science A course is an introductory course in computer science. The major theme of the course is problem solving. The course is intended to serve both as an introductory course for computer science majors and as a course for students who will major in other disciplines and want to be informed citizens in today's technological society. The exam covers a subset of Java. The course includes a required lab component consisting of a minimum of 20 hours of hands-on lab experiences.

Required Materials
• A three-ring binder to keep lecture notes, problem assignments and class handouts
• A three-ring binder to keep lecture notes, problem assignments and class handouts. It is essential that you have a binder with loose-leaf paper rather than a notebook because you will often have to pull sheets out for classwork or to turn in work.
• Loose-leaf paper, pens (black/blue for work and red/green for corrections), pencils, etc.
• Dry-erase markers

Textbook
Nobody ever learned programming by studying a book. There is no required textbook for this class. All material will be provided in class lectures. Supplementary material will be posted on the class website, as necessary.

Lectures will follow the order (approximately) and presentation style in Liang, *Introduction to Java Programming, 10th Edition* (2016).

There are three widely used freeware Java textbooks. We will not be extensively using any of them, but they cover many of the same topics and are available online at no cost:
Cook, *Blue Pelican Java* (2005)
http://people.ucls.uchicago.edu/~bfranke/apcs_0809/downloads/BPJ_TextBook_3_0_5.pdf
Downey & Mayfield, *Think Java, 6th Edition* (2016)
http://greenteapress.com/thinkjava6/thinkjava.pdf
Eck, *Introduction to Programming Using Java, 7th Edition* (2015)
http://math.hws.edu/eck/cs124/downloads/javanotes7-linked.pdf

Finally, copies of the following textbooks are available in the classroom for student use:
Java Methods: Object-Oriented Programming and Data Structures, 2nd AP Edition by Litvin and Litvin
Java Software Solutions: For AP Computer Science A 2nd Edition by Lewis, Loftus and Cocking

AP Exam Study Manuals
We will include the relevant material from the following exam prep study manuals:
• 5 Steps to a 5 AP Computer Science, 2017 Edition
• AP Computer Science A (Barron), 7th Edition
• Be Prepared for the AP Computer Science Exam, 6th Edition
• MC and FR Questions in Preparation for the AP Computer Science Examination

You should not need a study manual. Most of these have not been updated for the new 2019-20 syllabus anyway. And if you do decide to buy a study manual, definitely do **NOT** buy *Cracking the AP Computer Science A Exam (Princeton Review)*, because it is riddled with errors.

Software
Java SE Development Kit
http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html
IntelliJ IDEA Community Edition
https://www.jetbrains.com/idea/

Quarterly Grading
Quizzes and Exams 70%
Homework and Coding Exercises 30%

Schedule of Topics (First Three Quarters)
Unit 1 Primitive Types [3 days]
Unit 2 Using Objects [4 days]
Unit 3 Selection [11 days]
Unit 4 Iteration [13 days]
Unit 5 Writing Classes [4 days]
Unit 6 Arrays [6 days]
Unit 7 ArrayList [6 days]
Unit 8 2D Arrays [6 days]
Unit 9 Inheritance [5 days]
Unit 10 Recursion [4 days]

Advanced Placement Course Guidelines

Students taking an Advanced Placement (AP) course at Everglades should understand the following information:

- An AP course is the equivalent of a college-level course. The curriculum for an AP course, as set by College Board, is designed to prepare students to take a national exam in May. Everglades students enrolled in an AP course are required to take the AP exam.

- Taking an AP course means having to complete assignments at a very fast pace. The pace of an AP course is set by College Board. To develop the skills necessary and to learn the content required for the AP exam, the course must move at a steady (some say rapid) pace. Students in an AP course must feel comfortable if the class moves on to another skill or new content before they have mastered the previous skills and content.

- Taking an AP course means doing more work. You can expect to have longer assignments and more work outside of regularly scheduled class time. Students should expect to study **at least** 90 minutes outside of class for every 90 minutes spent in class.

- The content and skills to be mastered in an AP course are more sophisticated than those in previous courses. Students moving into an AP course will generally see their grades go down. Almost every student in AP Calculus earned an A in Pre-Calculus Honors, but experience indicates that few will do so in AP Calculus. If you are a student for whom it is important to get an A in every course, then an AP class may not be right for you.

- Just because you are eligible to take an AP course does not mean you should take an AP course. Students who have a deep interest in the course material, who are willing to work longer hours, who can work independently and think abstractly in the discipline, AND who can balance such a commitment with their other obligations and goals (particularly other Everglades AP courses) tend to have the most positive experiences in an AP course.

Academic Honesty Guidelines

- Do not copy solutions off the internet.

- You may **discuss** the problems with peers.

- When **asking** for help, you may show a peer your code, use and cite online resources, and ask the teacher for help.

- When **giving** help, you may *not* show a peer your code. You may critique a peer's code and ask guiding questions to help a peer see the solution.

Reasonable

- Communicating with classmates about problem sets' problems in English but not Java

- Discussing the course's material with others in order to understand it better.

- Helping a classmate identify a bug in his or her code

- Incorporating a few lines of code that you find online or elsewhere into your own code, provided that those lines are not themselves solutions to assigned problems and that you cite the lines' origins.

- Sending or showing code that you've written to someone so that he or she might help you identify and fix a bug.

- Sharing a few lines of your own code online so that others might help you identify and fix a bug.

- Turning to the web or elsewhere for instruction beyond the course's own, for references, and for solutions to technical difficulties, but not for outright solutions to problems.

- Whiteboarding solutions to problem sets with others using diagrams or pseudocode but not actual code.

- Working with (and even paying) a tutor to **help you** with the course, provided the tutor **does not do your work for you**.

Not Reasonable

- Accessing a solution to some problem prior to submitting your own.

- Asking a classmate to see his or her solution to a problem before submitting your own.

- Failing to cite (as with comments) the origins of code or techniques that you discover outside of the course's own lessons and integrate into your own work, even while respecting this policy's other constraints.

- Giving or showing to a classmate a solution to a problem when it is he or she, and not you, who is struggling to solve it.

- Looking at another individual's work during the test or quiz.

- Paying or offering to pay an individual for work that you may submit as your own, even if it is just part of the assignment.

- Providing or making available solutions to problem sets to individuals who might take this course in the future.

- Searching for or soliciting outright solutions to problem sets online or elsewhere.

- Splitting a problem set's workload with another individual and combining your work.

- Submitting the work of another individual beyond the few lines allowed herein, even if you modified this work.

- Viewing another's solution to a problem and basing your own solution on it.

Dear Parent/Guardian of an APCSA Student:

AP Computer Science A requires students to write and submit working code for a grade. Students learn computer science concepts better when they write their own code. I encourage student collaboration and the giving of advice, if it is limited to talking together. Indeed, I could not run this course the way I do without such student collaboration. The aim should always be for the students to learn to write their own code.

Plagiarism, which is copying another person's work and presenting it as one's own, is an offense with consequences. Part of my job is to counsel students suspected of code plagiarism. A student who cannot explain his or her code may have simply copied the code. In addition, I will check students' work using a plagiarism detection program called MOSS, which is hosted by Stanford University at http://theory.stanford.edu/~aiken/moss/.

AP Computer Science A has established guidelines around the use of MOSS, specifically:

- Teachers will check student code for plagiarism through a variety of means, including but not limited to, the use of plagiarism detection software. Teachers will use such checks to instruct students regarding the line between collaboration and copying.
- In the case of clear plagiarism, teachers will follow established Broward County Public Schools and Everglades High School discipline procedures.
- Students and parents understand that by submitting student code for grading and credit, they are agreeing to this check of the code. Students who do not submit their code will not receive credit.
- Teachers will submit either all code for a given assignment or none. Submissions will not be limited to questionable code only.
- Teachers will be consistent in the cutoff score for what constitutes problem code when using the similarity index on any given assignment. For example, teachers will not decline to counsel one student for a similarity index rating of 50% while counseling another student for a similarity index of 25%. (The cutoff score will vary between assignments.)
- Students will not submit code with personally identifiable information, such as email addresses.

Thank you for your cooperation.

Regards,
Alberto Dominguez, MS
AP Computer Science A Teacher
Everglades High School

Advanced Placement Contract – Computer Science A

Requirements:

- Before the first day of class, students should read and agree to abide by the conditions stated in the AP Course Guidelines, the course syllabus, and this contract.
- Other than in the case of absence, late work will not be accepted.
- Students should be prepared for class every day, ready to participate fully in class discussions, individual class work, quizzes and/or examinations, and any other work determined necessary by the teacher.
- Students are required to take the first semester exam. There are no exemptions available for the first semester exam.
- Exam solution sessions (particularly for 4th quarter mock exams) will be scheduled immediately after school on certain dates (advance notice will be given). Students are responsible for their own transportation to classes scheduled when buses do not normally run. Material covered during these sessions will be essential knowledge; these are not optional.
- A full-length mock exam will be scheduled on a Saturday in 4th quarter (tentative date: April 17, 2021, 8:00 am – 12:00 noon).
- Cheating will not be tolerated in any form. Students who cheat will receive a grade of zero on the assignment or assessment and will be subject to disciplinary action.
- Students are required to take the AP exam on Thursday, May 6, 2021, 12:00 noon – 4:00 p.m. (college credit may be given for students who earn a score of 3 or better, decided by individual colleges at their sole discretion). Students who do not take the AP exam will not get the additional quality point in their GPA calculation, will not be eligible for exemption from the second semester exam, and will incur a financial obligation.

I affirm that I have read this contract and agree to abide by its stipulations.

_____ _____
Student Signature   Date

I affirm that I have read this contract and support my student's decision to take this course. I understand the ramifications of this course selection.

_____ _____
Parent/Guardian Signature   Date

Please return this contract to Mr. Dominguez on the first day of class.