Course: AP Computer Science A   **Year:** Fall 2023 - Spring 2024
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Microsoft Teams and Canvas:
We will continue to use Microsoft Teams as our hub for all course materials. All notes, handouts, resources, announcements and assignments will be disseminated and collected through Teams. While there is a web-based version of Teams, it is easier to use the app. (You can download the app to your computer, tablet, and/or phone). Please also get the OneNote app.

However, Canvas is our new Learning Management System that teachers are beginning to implement over the course of this year and next year. Be on the lookout for more information related to the use of this new tool.

Communication will also occur regularly through your school email address (studentid#@fcstu.org) which you should check multiple times a day.

Textbook: Students will be expected to purchase an approved AP Computer Science preparation handbook. Information will be provided to students in class with respect to timing and where to purchase this preparation guidebook. These manuals are critical for test preparation.

AP Classroom: (Only applicable for AP teachers. Add class codes**)**
Log on to https://myap.collegeboard.org with your regular College Board log on.
AP Classroom Join Codes are posted in the classroom for students to join the class.

Course Description:

The goal of the **AP Computer Science - A** course is comparable to the introductory course for computer science majors offered in many college and university computer science departments. It is not expected that all students in this class will major in computer science. Nevertheless, this class is intended to serve as an introduction course for computer science majors, and as a course for people who will major in other disciplines and want to be informed citizens in today's technological society.

This class is taught at the college freshman level. Although this course can be taken with no programming experience beforehand, it is highly recommended that students complete the two prerequisites for this course: Introduction to Digital Technology and AP Computer Science Principles.

Standards

AP-CS-1 Object-Oriented Program Design
AP-CS-2 Program Implementation (Learning the JAVA Language)
AP-CS-3 Program Analysis (Testing, De-bugging, Exception Handling, Code/Memory Analysis)
AP-CS-4 Standard Data Structures
AP-CS-5 Standard Operations and Algorithms
AP-CS-6 Computing in Context (System reliability, Privacy, Legal Issues, Intellectual Property)

Class Units and Topics

	Topic	Class Periods
0	Course Introduction & Foundational Concepts	10
1	Baseline Java & Introduction to Objects	19
2	Advanced Java Concepts	18
3	Putting Java to Work: Modeling, Generics, Arrays, & Sorting	19
4	Coding Sorts and Language Review, Exam Prep/Fall Wrap-up	16
5	Structured Language, OOP Review, Hand Coding	14
6	Advanced Java Programming: UI & Database Introduction	19
7	Spring Master Projects using Agile	19
8	Project Presentations, Hand Coding with IDE Verification	15
9	Final Prep, AP Exam, Future Concepts and Languages	21

Course Expectations

As with all department courses, this course is designed to help prepare students to be more productive, trusted and valued as employees. Participation and a good attitude is expected. Independence and on- task behavior is expected. Professionalism is expected at all times. Teamwork and mutual respect are a necessity.

There will be increased focus on providing students with every tool possible to enable their best preparation/performance on the AP Exam. There will be **significant** code-writing practice, and for efficiency, we will be using Visual Studio Code and/or Eclipse Integrated Development Environment (IDE) for all coding. These are free IDEs that can be downloaded and installed for home use as well. It is a peer-reviewed and production quality IDE. Students will receive significant setup instruction in class.

All students are to act as young adults in the classroom. They will treat others and be treated with respect at all times. Failure to act responsibly can result in disciplinary action.

Top performing students will be recommended for advancement into the Computer Science Senior Seminar Work-Based Learning Program. This advanced program will further prepare serious students for a career in Information Technology and Software Engineering.

Grading Scale

90-100 A   **80-89** B   **70-79** C   **0-69** F

Grading Rules –
All grades are available to students and families through Infinite Campus.

Grading Categories Weights (2023 Policy)

Major Assessments	55%
Minor Assessments	35%
Practice Assessments	10%
Total	100%

Late work/ make up work policy:

What happens when a student misses work due to being absent (excused/unexcused)?

- Students will have an equal number of days they were absent to make-up their major assessment. For missed major assessments, students will communicate with their teacher to develop a make-up plan. If the major assessment is not made up by the deadline of the agreed upon plan discussed between the teacher and student a zero will be entered. At this time, the student may enter the recovery process for a maximum grade of a 75. For example, if a student misses a major assessment due to being absent on Tuesday, upon their return on Wednesday they will be expected to take the make-up assessment unless they communicate and develop a make-up plan with their teacher.
- For practice and minor assessments after the deadline of an equal number of days a student was absent, teachers will deduct 10% from a late or missing assignment. After this, teachers will deduct 25%.
- If a student fails to turn in a late or missing practice or minor assessment by the end of the unit, teachers will enter a zero for the assessment in the gradebook.

What happens when a student is present in-class but does not turn in an assessment by the due date?

- Teachers will deduct 10% of the late or missing assessment grade for the first day it is late. After this the teacher will deduct 25%.
  If a student fails to turn in a late or missing assessment by the end of the unit, teachers will enter a zero in the gradebook.

Final Graded Experiences:

- Professional Learning Communities (PLCs) will administer their final graded experience during the last regular scheduled week (full school days) of each semester. The graded experience will count as a major assessment.
- PLC's will have the flexibility to determine if these graded experiences will be cumulative or not.
- These graded experiences will count as one major assessment and will be completed within one allotted class period.
- Final cumulative graded experiences will not be administered second semester if the course has a state- mandated End-of-Course (EOC) exam or national Advanced Placement (AP) exam.
- Students are limited to one recovery attempt as outlined above in the recovery section. The graded experience recovery will take place during the last three days of school (half-days).

Recovery:

- Students are limited to one recovery attempt per major assessment if they scored below 75% on the initial assessment. Recovery will not be provided for minor or practice assessments.
- Students can earn a maximum grade of 75% on the recovered major assessment. Students who earn between 75 – 100 on the recovered assessment will receive a 75%. Students who earn below a 75 on the recovered assessment will receive the grade earned or the original grade; whichever is higher.
- The original score will be noted in the comment section of the grade book when a student recovers a major assessment.

- Recovery must be requested by the student and completed prior to the due date of the next major assignment/assessment.
- Professional Learning Communities (PLC's) may require a student to complete any missing assessments, remediation activities, and/or attend extra-help sessions prior to recovery opportunities.

Honor Code: Integrity is a core value of the Johns Creek High School community. Johns Creek students are expected to demonstrate honesty and integrity in all endeavors. <u>All student work submitted must be the student's own work</u>. The Honor Code applies to all students and to all assignments (classwork, homework, quizzes, exams, papers, projects, labs, etc.) Collaborating, copying, plagiarizing etc. all constitute attempts to present another's work as though it was one's own and will not be tolerated. This includes, but is not limited to:
- Any form of collaboration on any assignment unless explicitly allowed by the teacher
- Copying the work of another student
- Sharing one's own work with another student
- Sharing the content of an assessment or exam with another student
- Using information/resources on an assignment that are not explicitly allowed by the teacher
- Using electronic devices to aid on an assignment when not explicitly allowed by the teacher
- Plagiarism or the unauthorized use or close imitation of the language or thoughts of another and representing them as one's own. This includes copying or cutting-pasting (even with minor revisions) from any source without proper citation.
- Note that this list is not exhaustive and other actions may violate the spirit of the Honor Code

All electronic devices should be in the student's bag or away from their desk during all assessments unless explicitly allowed by the teacher. If a student is in possession of a phone or electronic device that can transmit or record information during a major it will result in automatic academic dishonesty. This means the student will receive a zero on the major with no option to recover. The student will not be eligible to bring this claim to the academic dishonesty panel.

Note that JCHS students enrolled in any courses with non-JCHS institutions (Fulton Virtual, Georgia Virtual, Dual Enrollment, etc.) are subject to the JCHS Honor Code policy as well as the Honor Code policies of the other institution. Johns Creek has no control over the decisions of other non-JCHS institutions.

Suspected violations of the honor code on major assignments will be referred to an Honor Code panel consisting of one teacher, one counselor, and one administrator who have no connection to the specific case. The panel will provide due process to determine if, in fact, the Honor Code has been violated. If the panel determines that a student has violated the Honor Code: *1st Offense* results in the student being assigned a 0% on the assignment with no possibility of recovery; *2nd Offense* results both in the 0% without possibility of recovery and an Honor Code Violation entered on the student's official record.

Honor code violations may also jeopardize membership in honor societies and any honors recognitions as well as a student's ability to represent Johns Creek High School.

Extra Credit Policy
No grades will be given for nonacademic assignments.

Extra Help
Extra help Is routinely available most days before and after school. Flex periods and even lunch period 4 are often available by appointments.

Proper use of technology

In grades 6 through 12, the use of Personal Communication Devices (PCDs) is not allowed during instructional time and will only be allowed when explicitly instructed to do so by a teacher or other school staff member. Teachers will either have a visual cue or will verbally notify students when they are allowed to have their cell phones out during the class period.

Please note: Use of (or participating in using) personal or school technology resources to distribute, display, or record inappropriate material is a serious, **Tier III violation of the Fulton Schools Student Code of Conduct.** Inappropriate material does not serve an instructional or educational purpose and includes, but is not limited to, the following:

- is profane, vulgar, lewd, obscene, offensive, indecent, or threatening
- advocates illegal or dangerous acts
- causes disruption to the Fulton County School District, its employees or students
- advocates violence
- contains knowingly false, recklessly false, or defamatory information
- is otherwise harmful to minors as defined by the Children's Internet Protection Act

The use of cell phones and other PCDs for noneducational purposes, including but not limited to, recording staff and/or students without permission or other inappropriate content is strictly prohibited.

Any report of inappropriate virtual conduct will be investigated by the Johns Creek High School administration and offenders will be subject to disciplinary consequences in line with the Fulton Schools Student Code of Conduct, **up to and including permanent expulsion from Fulton County Schools.**

Computer Science Lab Specific Instructions

It is very important for students to arrive on time, and to **maintain a continuous attendance routine**. Our class content builds rapidly, and missing class makes keeping up with the pace of class significantly harder.

With specific prior permission, and only in very extenuating situations, the teacher may authorize some projects to be submitted via email. **These rare situations are the only circumstances in which email collection is accepted.**

Printing of all projects or assignments shall be completed *prior to the due date*. If projects are not available for collection on arrival on their due dates, they will be penalized as late.

Computer Science-Specific Plagiarism and Hacking Policy

The computer science teacher has scanning tools to determine code and programmatic cheating, as well as artificial intelligence generation of code. These activities are considered plagiarism and will be handled according to the above stated policies. It typically takes less than .7-1.3 seconds for these tools to identify students turning in non-original code. These tools allow the teacher to rule out any false positives, so students doing their own work are never at risk.

Students are forbidden to bring any hacking tools on their computers to school. Use of programs such as Jack-and-Jill or other network penetration or scanning tools will not be tolerated and will subject students to referral for disciplinary action.

Computer Science Portal – We now have an online portal for our computer science classes, that will provide real-time blog information, all content presented in classes, assignments, and other information germane to each class. The blog is visible to anyone at http://www.hawkeyedriver.net.

Students are expected to routinely: Be in attendance of Teams classes, check the Team & portal for their assignments and feedback, and to be active in their educational process.

If we have any digital learning days due to inclement weather, all assignments will be given via the course pages and the blog.