

James Clemens High School

11306 County Line Road
Madison, AL 35756



Phone: 256-216-5313

Extension: 95133

Email: PaPaquette@madisoncity.k12.al.us

Course Syllabus

Advanced Placement Computer Science Principles

Instructor: Mrs. Pamela Paquette

Dear Parent/Guardian,

I look forward to having a great year! I want to help make this a successful and enjoyable semester. I feel fortunate to have your son/daughter in my class this semester and hope that you will contact me should you have any concerns about the progress of your son/daughter or any aspect of the instruction. With your son/daughter, please read the attached policies, then sign and date this signature page and have your son/daughter return this form. Please provide a current email address and phone number at which I can contact you should the need arise. Please contact me at school with any concerns.

Click this link to provide me with your contact information and acknowledgement that you have reviewed this information. This information must be completed by Monday, August 9, 2021. [Acknowledgement Form](#)

Thank you,

Mrs. Paquette

papaquette@madisoncity.k12.al.us



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Advanced Placement Computer Science Principles

Instructor: Mrs. Pamela Paquette

Course Description:

AP Computer Science Principles is the newest AP® course from the College Board. This course introduces students to the foundational concepts of computer science and explores the impact computing and technology have on our society.

With a unique focus on creative problem solving and real-world applications, the CodeHS AP Computer Science Principles course gives students the opportunity to explore several important topics of computing using their own ideas and creativity, use the power of computing to create artifacts of personal value, and develop an interest in computer science that will foster further endeavors in the field.

Course Objectives:

Increase and diversify participation in computer science

Students, regardless of prior experience in computing, will develop confidence using computer science as a tool to express themselves and solve problems, and this confidence will prepare them for success in future endeavors in the field of computer science

Students will be able to:

- understand the core principles of computing, a field which has and continues to change the world
- develop computational artifacts to solve problems, communicate ideas, and express their own creativity
- collaborate with others to solve problems and develop computational artifacts
- explain the impact computing has on society, economy, and culture
- analyze existing artifacts, identify and correct errors, and explain how the artifact functions
- explain how data, information, or knowledge is represented for computational use
- explain how abstractions are used in computation and modeling
- be informed and responsible users of technology

Classroom Rules and Expectations:

1. Be in your seat when the bell rings.
2. Do not bring food, drink, or gum into the classroom.
3. Bring all books and materials to class.
4. Turn around and pay attention during lectures and class discussion with screens OFF.
5. Be respectful of the teacher, each other, and all classroom property.
6. Participate in classroom discussion and group work.
7. Do not get on the Internet until your work is complete. The first offense will result in a written warning. The second offense will result in a 30 minute detention. The third offense will result in a 60 minute detention and a call to your parent(s). Each subsequent offense will automatically result in a discipline referral and a call or

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conference with your parent(s). At the end of the three week grading period, all offenses will be cleared.

Accommodations: Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning Laptop Utilization: Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

Make-Up Work Policy:

If you are absent, it is your responsibility to consult me to see what you have missed. All work missed on the day(s) of the excused absence(s) must be made up within three school days after returning to school. It is also your responsibility to turn this work in to me by the third day. If you do not turn in the work within 3 days then it will become a zero. If you missed a test or quiz, we will need to schedule a day for you to take the make-up test. If you need additional laptop time to complete assignments or tutoring, please see me ahead of time to arrange a time.

Course Materials:

Learning Environment: The course utilizes a blended classroom approach. The content is a mix of web-based and physical activities. Students will write and run code in the browser, create digital artifacts, and engage in in-person collaborative exercises with classmates all with a focus of Cybersecurity. Teachers utilize tools and resources provided by CodeHS to leverage time in the classroom and give focused 1-on-1 attention to students. Each unit of the course is broken down into lessons.

Lessons consist of video tutorials, short quizzes, example programs to explore, written programming exercises, free response exercises, collaborative creation projects, and research projects.

Programming Environment: Students write and run programs in the browser using the CodeHS editor. Students will be able to write both text-based and block-based JavaScript programs, and students will use Processing.js to create graphical programs. Students gain programming experience early on in the course that will enable them to explore the rest of the course topics through computational thinking practices.

Quizzes: At the end of most units, students take a summative multiple choice unit quiz in the style of the AP Exam that assesses their knowledge of the concepts covered in the unit. The course also provides an AP Test Practice unit with a cumulative AP Practice Multiple Choice Test.

Texts/Required Readings:

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Access to a computer and high-speed internet is required. There is also an online textbook available for many modules and topics which can be accessed through the lesson plans or at <https://codehs.gitbooks.io/introcs/content>



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18 - WEEK PLAN*	
WEEK 1	Introduction to Computer Science Principles
WEEK 2	Introduction to Programming
WEEK 3	Pair Programming
WEEK 4	Programming with JavaScript
WEEK 5	JavaScript Control Structures
WEEK 6	Functions and Parameters
WEEK 7	Practice Performance Task & Basic Data Structures
WEEK 8	Digital Information & Practice Performance Task
WEEK 9	MIDTERM
WEEK 10	Encryption
WEEK 11	Practice Performance Task & Project Impacts of Computing
WEEK 12	The Internet
WEEK 13	Cybersecurity
WEEK 14	Performance Task: Cyber Ethics
WEEK 15	Data & Project: Present a Data-Driven Insight
WEEK 16	Create Performance Task (Submitted to the College Board)
WEEK 17	Create Performance Task
WEEK 18	Exam Review (Advanced Placement Exam will be in MAY!)

* This syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions or substitutions.