

AP CS Principles Syllabus Mrs. Hansen 2025-26 Skyview High School



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Course Description

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.

AP CS Principles Course Overview from the College Board (link)

Course Learning Goals

Students will be able to:

- Design, implement, and analyze solutions to problems
- Use and implement commonly used algorithms
- Develop and select appropriate algorithms and data structures to solve new problems
- Understand the ethical and social implications of computer use
- Understand how the internet functions and data is transmitted from one place to another.
- Understand issues around cybersecurity and know ways to protect data
- Be prepared for the AP Computer Science Principles Exam in May
- Be prepared to complete the **Create Performance Task** during class time working independently (as required by the College Board)
- Practice professionalism, leadership, and teamwork skills

Professionalism, Leadership, Teamwork:

Professionalism, leadership and teamwork will be evaluated throughout the course. Developing leadership skills is an essential part of all Career and Technical Education classes. Opportunities to develop these skills are incorporated into every project. Students will practice and be evaluated on:

- Communication and interpersonal skills
- Working with a diversity of people
- Setting and working toward goals
- Identifying and demonstrating quality standards
- Arriving to class on time, being in class and participating in class
- Being prepared for class and the projects
- · Meeting deadlines

Course Topics

First Semester

- Unit 1: Introduction to Programming with Karel the Dog (4 weeks)
- Unit 2: Practice Performance Task (PT): Pair-Programming Paint (~1 week)
- Unit 3: Programming with JavaScript (2 weeks)
- Unit 4: JavaScript Control Structures (3 weeks)
- Unit 5: Functions and Parameters (2 weeks)
- Unit 6: Tell a Story (1 week)
- Unit 7: Basic Data Structures (2 weeks)
- Sample Create Performance Task Projects (2 weeks)
- Semester Exam

Second Semester*

- Unit 18: (Practice) Create Performance Task (3 weeks)
- Unit 15: Data (1 week)
- (Actual) Create Performance Task (3 weeks)
- Unit 8: Digital Information (3 weeks)
- Unit 10: Encryption (1 week)
- Unit 12: The Internet (2 weeks)
- Unit 19: Review for AP Exam & other AP Exam Review (3 weeks)
- Unit 13: Cybersecurity (2 weeks)
- Semester Exam
- Hands-on projects (if time)
 - * Note that the unit number is out of order so we can get the Create Task completed prior to Spring Break

Programming Language

The AP Computer Science Principles course does not require that students learn a specific coding language. Students will be coding mainly with JavaScript in this course. Despite the language, the concepts, algorithms and problem-solving all work in basically the same way.

AP Computer Science Principles Exam

This course will prepare you to take the AP Computer Science Principles Exam on **Thursday, May 14th, 2026, at 12:00pm**. The cost of the exam is \$99. See <u>College Board website</u> for details.

Part	Time	Weight	Notes
Create Performance Task	9 class hours (in-class) + 1 hour on exam day	30% of AP Exam Score	 Completed individually in class Submit code & written responses online On exam day, answer questions about your Create Task
Multiple-Choice Exam	2 hours	70% of AP Exam Score	70 questionsCompleted online on exam day

Grading Policy

AP Computer Science Principles Grades will be calculated with the following categories:

- 60% Projects (CodeHS Projects, Actual and Practice Create Performance Task)
- 20% Assessments (quizzes, tests, practice AP questions)
- 20% Daily Work (Journal responses, worksheets, smaller assignments in CodeHS.com)

Grading Scale

Percent	Letter Grade	Description	
93-100%	А	Work clearly stands out as "excellent" and demonstrates superior mastery of concepts and skills.	
90-92.99%	A-		
87-89.99%	B+	Goes beyond basic requirements and demonstrates above average comprehension and mastery of concepts and skills.	
83-86.99%	В		
80-82.99%	B-		
77-79.99%	C+	Demonstrates a basic comprehension and mastery of concepts and skills.	
73-76.99%	С		
70-72.99%	C-		
67-69.99%	D+	Quality and quantity of work is below average.	
60-66.99%	D	Quality and quantity of work is barely acceptable.	
0-59.99%	F	Quality and quantity of work is unacceptable.	

Attendance Expectations

New material is introduced frequently which makes it challenging to get your projects done on schedule if you miss class. This course especially depends on collaboration between students, so there will be some things that will be very difficult to make up if you are absent. Please make an effort to attend class regularly and get make up work in a timely manner.

Late Work Policy

This class will move at a steady pace in order to cover the material prior to the exam. Reasonable deadlines, generally 2 days, will be given for classwork, labs, and projects. If you cannot meet the deadlines then make arrangements *in advance* to turn the work in late. Do not put off doing work and then assume that you can come to me to "get all my missing work" at the end of the quarter/semester and still get credit for it. The last day to turn in late work is two weeks from the end of the semester.

Getting Help

You may find that you need to put in extra time *outside of class* to complete projects and assignments on time. I am happy to help you with your assignments or projects whenever you want to stay and get help. I am usually available before school, Mon, Tues, Thurs & Fri from 7:30am-8:30am, and every day during Storm Time. I am available after school by appointment as my schedule varies week to week, but usually Tuesdays and Fridays. You can always email me with questions too.

Course Materials

- Pen or Pencil for notes
- CodeHS Curriculum, https://codehs.com/
- A laptop will be provided for use at school
- An internet connection for school-issued laptop at home is recommended
- A notebook for notes (can be digital if you want, but taking notes is part of this class)
- Optional: computer mouse, several available to borrow in class
- Optional: headphones, several available to borrow in class
- Lesson Plans can be found on my Planbook website

Instructional Philosophy

I believe students learn best when they're actively engaged in class and willing to work through challenges instead of avoiding them. That is often when meaningful understanding occurs – when they struggle a little, stick with it, and come out the other side with something they truly understand and can call their own. Since every student comes in with different strengths and experiences, my role is to meet them where they are and help them grow from there.

Academic Integrity Policy - Computer Science

In professional software development, collaboration, code-sharing, and even the use of Al tools are common practices. However, in an academic setting, these activities must follow specific guidelines to ensure fairness, individual understanding, and authentic learning. This policy outlines what is acceptable and what constitutes plagiarism or cheating in all of my computer science classes.

Collaboration

You are encouraged to discuss ideas and problem-solving strategies with classmates. However, unless explicitly allowed, you may not write or edit code on another student's device—or allow them to do so on yours. Doing so is considered academic dishonesty.

Using Outside Resources

You may use online resources (such as tutorials, forums, or documentation) to help understand concepts or gather ideas. However:

- Adapt, Don't Copy: Small sections of code from outside sources may be adapted into your work—but they must be significantly modified and not used wholesale.
- Cite Your Sources: If you use any external idea or code (including from Al tools like ChatGPT or GitHub Copilot), you must clearly cite it in your code comments.

Understanding Your Code

You must be able to explain how your code works. If you submit something you cannot explain, it may be treated as a violation of this policy—even if you wrote it yourself with assistance. The key is demonstrating your own understanding, not just producing working code. When you submit your work, you are saying: "This is my work, and I understand it well enough to explain it."

Consequences

Violations of this policy, especially serious or repeated ones, may result in:

- A zero on the assignment or project
- Parent/quardian contact
- Referral to administration
- A failing grade for the quarter or semester in extreme cases

Classroom Expectations

Every student deserves the opportunity to learn and succeed. It is my responsibility to create a classroom that is safe, respectful, and conducive to learning for everyone. Here are my expectations:

- **Be Punctual**: Arrive on time and be ready to learn/work as soon as the tardy bell rings or class begins.
- **Be Prepared**: Bring all necessary supplies and materials to class, so you are ready to engage fully in your work.
- Be Respectful: Show respect to all individuals and property.
- Be Honest: Do your own work.
- Be Responsible: Take ownership of your learning, as well as your words and actions.
- **Be Ethical**: Adhere to district technology policies and uphold the highest ethical standards when using school technology.

Consequences

In our classroom, every student's right to learn is respected. If behavior disrupts this environment, we will work together to resolve it. Here's how we'll address any issues:

- 1. First Reminder: A gentle reminder (verbal or non-verbal) to help you get back on track.
- 2. **Collaborative Problem-Solving**: We'll have a private conversation to discuss the behavior and find a solution together.
- 3. **Context-Specific Consequences**: Depending on the situation, additional steps may include detention, parent contact, or other appropriate actions.
- 4. **Referral to Administration**: If necessary, the issue may be escalated to an associate principal for further support.

Note: In some cases, immediate action may be required, such as changing seats or a visit to the administrator's office to ensure a positive learning environment for all.

Notice of Nondiscrimination

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This notification can be provided in the appropriate language for communities of national origin and minority persons with limited English language skills by contacting 360-313-1250.