

Computer Science Principles

Course Syllabus

Instructor: Mrs. Sonja Goins

E-Mail: sonja.goins@henry.k12.ga.us

Semester: Fall 2020 and Spring 2021

Phone Number: (770) 954-9515

Room: #516

PROGRAM CONCENTRATION:
CAREER PATHWAY:
COURSE TITLE:

Information Technology
Programming and Computer Science
CS Principles Course Number: 11.47100

Course Description:

How can computing change the world? What is computer science? Engage your creativity, demonstrate and build your problem solving ability all while connecting the relevance of computer science to the society! Computer Science (CS) Principles is an intellectually rich and engaging course that is focused on building a solid understanding and foundation in computer science. This course emphasizes the content, practices, thinking and skills central to the discipline of computer science. Through both its content and pedagogy, this course aims to appeal to a broad audience. The focus of this course will fall into these computational thinking practices: connecting computing, developing computational artifacts, abstracting, analyzing problems and artifacts, communicating, and collaborating.

Various forms of technologies will be used to expose students to resources and application of computer science. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are enhanced in this course to prepare students to be college and career ready. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry.

Computer Science Principles is the second course in the pathways Programming and Computer Science in the Information Technology Cluster. Students enrolled in this course should have successfully completed Introduction to Digital Technology.

21st Century Skills – Communication; Collaboration; Citizenship (Digital); Critical Thinking

Course Standards

IT-CSP-1 Demonstrate employability skills required by business and industry.	IT-CSP-6 Create programs that translate human intention into computational artifacts while exploring the concepts, techniques and development used in writing programs.
IT-CSP-2 Create digital artifacts that foster creative expression including programs, digital music, videos, images, documents, and combinations of these such as infographics, presentations, and web pages.	IT-CSP-7 Gain insight into operation and characteristics of the internet and systems built upon it; analyze important concerns such as cybersecurity
IT-CSP-3 Apply abstractions in digital data to explain how bits are grouped to represent higher-level abstractions such as numbers and characters.	IT-CSP-8 Develop a logical argument in which computing enables innovation and methods of communicating,

<p>IT-CSP-4 Design and create computer programs to process and extract information to gain insight and knowledge.</p>	<p>collaborating, problem solving and doing business. Analyze potential benefits and harmful effects of computing.</p>
<p>IT-CSP-5 Develop, express, implement, and analyze algorithms analytically and empirically.</p>	<p>IT-CSP-9 Explore how related student organizations are integral parts of career and technology education courses through leadership development, school and community service projects, entrepreneurship development, and competitive events.</p>

Recommended Materials:

1. 1 Subject Notebook or 3-Prong Folder (plastic) with Paper
 2. Pen or Pencil
-

Evaluation and Grading/Assignments		A: 90 and above B: 80 – 89 C: 74 – 79 D: 70 – 73 F: 69 or below
Grading Policy:		
Task Groups (Categories)		
Class (Daily Work)	40%	
Assessments/Projects	40%	
Final Exam	20%	
Course Final Average	100% (Task Groups)	

New Electronic Device Policy:

The purpose of the new electronic device policy is to make sure that there is no distraction to the learning environment and that every student can be completely focused on academic achievement.

If a student is in possession of any electronic devices (smartphone, tablet, etc.), then those devices must be placed in an assigned pocket of a classroom phone caddy during every class period including instructional focus. If you have more than one device, (ex: multiple smartphones, and/or tablets), then both items must be placed in the assigned pocket. Students will be allowed to use their devices in the morning in the commons area before first period, between class changes, and during lunches (as long as they are not speaking on the phone or playing music that others can hear).

Please note that failure to comply with this expectation will result in a discipline referral and appropriate consequences will be given. Also, ELHS is not responsible for lost or stolen electronic devices. Students are encouraged to leave “non-instructional” personal items at home. The school-issued Chromebooks are the only electronic devices that are needed in the instructional setting.

Expectations for Academic Success	Additional Requirements/Resources
<ol style="list-style-type: none"> 1) Complete daily classwork assignments 2) Participate in class discussions and ask questions 3) Participate constructively as a team member 4) Problem solve and accept challenges 5) Challenge yourself to continuously improve 	<ul style="list-style-type: none"> • Acceptable Computer Use Policy • Tutoring Available

Notice of Equal Opportunity: <http://schoolwires.henry.k12.ga.us/Page/49720>