



*Career, Technical and Agricultural Education
Newton County Schools
Course Syllabus*

Information Technology Career Cluster
Computer Science Pathway



Computer Science Principles

Course Number: 11.47100
Semester: 2015-2016

Pre-requisite: Intro to Digital Technology

Instructor: Ashley Dawson

School Name: Newton College & Career Academy

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Planning Period: 8-9:10a

Room Number: 3.346
Phone: 678-625-6769 ext. 6599

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.

Textbook/Workbook(s)/Electronic Media:

No textbook required. A variety of software programs & *Canvas-A Learning Management System* are utilized in presenting the course material to students in an ONLINE FORMAT. Internet access outside of the classroom will be required. The Georgia Virtual Learning website along with other Internet websites and resources may also be utilized.

Course Syllabus: Computer Science Principles

Course Outline:

1. Employability skills
2. Career Technical Student Organization
3. Internet Characteristics
4. Computer Programs
5. Digital Artifacts
6. Algorithms
7. Visual Programming
8. Abstractions
9. Computing

Grading Procedures:

Grading Scale	Categories
A = 90-100 B = 80-89 C = 70-79 F = Below 70	Ethics/Reading/Writing/FBLA = 10% Daily Assignment = 25% Projects = 30 % Course Assessments = 10 % District Assessment = 10% Final = 15%

Attendance Policy: Students enrolled in CTAE classes are expected to follow the same guidelines for attendance as exemplified in the world of work and/or post-secondary educational institutions. Personnel at Newton County Schools follow the guidelines (approved by the Board of Education) related to absences and opportunities for students to make up missed work. Students and parents/guardians should refer to the specific course syllabus and to page six of the Student Handbook for specific information.

Classroom Expectations: Students enrolled in all CTAE classes are preparing to compete in the world of work and/or for a post-secondary education. Therefore, all work must exhibit a professional level of competency. Since honesty is expected in the work place, CTAE instructors demand a high level of expectation with each student being responsible for his/her own work; therefore, plagiarism will not be tolerated. In order to provide quality and up-to-date instruction, various types of equipment are necessary. Students must use all equipment as designed, respecting all property associated with the CTAE labs/classrooms as well as the property of other students. Another aspect of preparing students for success in future endeavors is the expectation of appropriate career related attire and appearance. Students are expected to dress appropriately for school, community and business functions.

Key Vocabulary Words:

Course Syllabus: Computer Science Principles

Relevant vocabulary words will be emphasized throughout this course; these words may often be important in other courses, including non-CTAE courses. Students will be introduced to these key words in context of various units of instruction and students may also access the words through the following methods:

- Teacher Learning Management System (Canvas & Quizlet)
- Student share drive or email
- Flash drive (student)
- Printed copy as requested from teacher

Information for Parent(s)/Guardian(s):

It is the goal of Newton County educators to provide students with the appropriate background knowledge in order to be successful when taking different local, state, and national standardized tests. Research indicates that information introduced, received and reviewed in a repetitive manner provides students with an opportunity for greater success in the assessment arena. Therefore, vocabulary will be stressed throughout this and all CTAE courses as well other key academic core classes. Parents/guardians may obtain a list of key vocabulary words relevant to this course through the following media:

- Teacher Learning Management System (KP Compass/Quizlet)
- Digital copy for student(s)
- Printed copy as requested from teacher

Syllabus Confirmation

Course Syllabus: Computer Science Principles

(A copy of this document will be kept on file by the teacher of this course.)

I have read the course syllabus and understand information contained therein.

Student's Printed Name

Student's Signature

Date

Parent/Guardian Printed Name

Parent/Guardian Contact Information:

Cell: _____

Home: _____

Work: _____

E-mail: _____

Parent/Guardian Signature

Date

**My child has access to an internet-connected device (computer, tablet, mobile phone, etc.)
outside of the classroom?**

(Please circle one answer)

YES or NO

Work Ethics Grade

Ms. Dawson – Business & Computer Science

Each student will begin this semester with 100 points for their Work Ethics grade. You will lose points when you are not staying focused on the completion of assignments in and during class time because of the following offenses.

One or more points for each offense will be taken from your grade for the following:

- ❖ Being disrespectful to teacher and/or classmates
- ❖ Playing games when not appropriate or without teacher permission
- ❖ Not participating in class and/or sleeping
- ❖ Being disruptive/talking

Special Internet Rule

The internet is on the computers for specific purposes only. You should only be on the internet if you have been given verbal permission to do so or if your textbook instructs you to do so. If you are caught surfing the internet (not using the internet for a specific educational purpose), you will lose **FIVE** points for each incident after being given ONE warning.

All of the above offenses coincide with the Classroom Procedures section of your course syllabus and therefore are subject to not only loss of points, but also detention or office referral.

****Additional offenses can be added at the instructor's discretion/direction.****

Remember – Right now you have a 100.

It's up to you to keep it!!

I have read and understand the above information.

Student Signature _____ Date _____

Parent Signature _____ Date _____