Mark Thompson Phone: 229.225.5050 mathompson@tcjackets.net	*Computer Science Principles* **Course Syllabus** **Room: PREP 115** **2019 - 2020**	

Career Cluster: Information Technology
Pathway: Programming, Computer Science

COURSE DESCRIPTION:

CS 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.

CS Principles is a course that exposes students to the beauty and awe of computer science. The course teaches students programming as well as places emphasis is on problem solving, and logic development. Exploring the impact of the computer science, its design and structure, use of computational tools in data analysis, are other topics that are explored in this course. Students are taught to use computer tools to solve problems pertaining to computer science. Most projects are open-ended and students will be working on them either in pairs or by themselves. As students create projects they will be asked to narrate the project as well as reflect on their work by writing reports or responding to prompts.

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.

COURSE CURRICULUM CONTENT:

COURSE STANDARDS			
IT-CSP–1	Demonstrate employability skills required by business and industry	IT-CSP-7	Gain insight into the operation of the Internet, study characteristics of the Internet and systems built upon it, and analyze important concerns, such as cybersecurity.
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-8	Develop a logical argument from the many ways in which computing enables innovation and our methods for communicating, collaborating, problem solving, and doing business, and analyze the potential benefits and harmful effects of computing in a the way people think, work, live, and play.
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-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.
IT-CSP-4	Design and create computer programs to process and extract information to gain insight and knowledge.		
IT-CSP-5	Develop, express, implement, and analyze algorithms analytically and empirically.		
IT-CSP-6	Create programs that translate human intention into computational artifacts including music, images, visualizations, and more while exploring the concepts, techniques and development used in writing programs.		

GRADING CATEGORIES:

Daily Grades/In Class Assignments	20%
Tests and Quizzes	20%
Projects/Lab Work	40%
Benchmark (Final)	20%

GRADING POLICY:

The grading scale is as follows: A = 90 – 100, B = 80 – 89, C = 70 – 79, below 70 is failing.

CLASSWORK:

Assignments are designed to be completed during class time. Classwork must be completed and submitted during class. Late work is not accepted. Making up work for excused absences is the responsibility of the student. Students should consult Google Classroom and inform the teacher to make up assignments for excused absences.

TEXTBOOK/MATERIALS:

- Students will not be issued a textbook for this class
- Computer and online resources
- Google Classroom an Online Learning Management System (LMS) will be used for managing assignments.
- Students should bring a writing instrument to class each day
- Interactive Notebook - provided

CLASSROOM RULES/CONDUCT:

As part of the P.R.E.P. Academy, the Business and Computer Science Department focuses on professionalism, accountability, responsibility, self-discipline and similar work ethics that are expected behaviors in a business environment. Therefore, each student is expected to conduct himself/herself in a professional manner by avoiding the following infractions: (1) unnecessarily stopping the teacher from teaching, (2) hindering other students from learning, and (3) engaging in behavior that is not in the best interest of the class. To insure that a positive learning atmosphere is maintained, the teacher will enforce the discipline procedures outlined in the *Thomas County Central High School Parent-Student Handbook.*

CONSEQUENCES FOR MISCONDUCT:

- 1st Offense: Verbal Warning. Documented.
- 2nd Offense: Call Parent or Guardian. Documented.
- 3rd Offense: Teacher Detention before or after school. Documented.
- 4th Offense: Disciplinary write-up to grade-level administrator.

COMPUTER USE:

Students will be required to access the Internet daily assignments and projects. Each student must have an Acceptable Use Policy (AUP) on file at the school. All policies in the AUP will be followed.

Students should use the internet when instructed for classroom purposes only. Students who violate the AUP will receive a discipline referral and may have their computer privileges revoked.

FUTURE BUSINESS LEADERS OF AMERICA (FBLA):

FBLA is a co-curricular student organization that plays an integral part in the components of the Business & Technology course standards. FBLA activities are incorporated throughout this course and the rest of the Business and Computer Science courses. Students are strongly urged to join FBLA ($25) to benefit from the wealth of opportunities the organization has to offer.

END OF PATHWAY ASSESSMENT

Students are encouraged to select a pathway beginning in ninth grade that is connected to their college and career goals. This course is one of three courses required to complete the Computer Science or Programming pathway in the CTAE department. At the conclusion of the third pathway course, students

will be required to take an End of Pathway Assessment. This assessment provides students an opportunity to demonstrate what they have learned by completing an on-line, nationally recognized exam (Microsoft Software Development Fundamentals Certification 98-361). Students who complete a pathway and earn an industry credential by passing the assessment will receive a graduation cord to signify their achievement.

CAREER OPPORTUNITIES

Computer Science Principles, as part of the Computer Science and Programming pathways, can help prepare students for careers in Information Technology, Management Information Systems, Computer Programming, and Computer Engineering.

Please read the following statements, print your name, sign, and fill out the information below.

As the **student**, I have read the Computer Science Principles syllabus and understand the expectations and requirements of the course. I also agree to follow the rules in Mr. Thompson's classroom.

_____ _____ _____

Student Printed Name **Student Signature** **Date**

As the **Parent/Guardian**, I have read the Computer Science Principles syllabus and understand the expectations and requirements of the course. I expect my TCCHS student to follow the rules in Mr. Thompson's classroom.

_____ _____ _____

Parent/Guardian Printed Name **Parent/Guardian Signature** **Date**

Parent Contact Information: ***Please indicate the preferred phone number.***

Home: _____ Best time to call: _____

Work: _____ Best time to call: _____

Cell: _____ Best time to call: _____

Email: _____