Career Cluster: Information Technology
Pathway: Programming, Computer Science

COURSE DESCRIPTION:

Are you ready to design and develop? The course is designed for high school students to strategize, design, and develop games and mobile and desktop applications that can be produced in the real world. Students will learn about life-cycles of project development and use models to develop applications. Attention will be placed on how user interfaces affect the usability and effectiveness of a game or an application. Programming constructs will be employed which will allow students' applications to interact with "real world," stimuli. The course exposes students to privacy, legality, and security considerations with regards to the software industry.

Various forms of technologies will be used to expose students to resources, software, and applications of programming. 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. Competencies in the co-curricular student organization, Future Business Leaders of America (FBLA), are integral components of the employability skills standard for this course.

Programming, Games, Apps and Society is the third course in the Programming pathway in the Information Technology cluster. Students enrolled in this course should have successfully completed Introduction to Digital Technology and Computer Science Principles. After mastery of the standards in this course, students should be prepared to take the end of pathway assessment in this career area.

COURSE CURRICULUM CONTENT:

COURSE STANDARDS			
IT-PGAS–1	Demonstrate employability skills required by business and industry.	IT-PGAS-7	Develop applications that read real-world data from sensors, interpret the data, and respond to the real-world stimuli.
IT-PGAS-2	Describe the software application life cycle and use a prototype development model to develop applications.	IT-PGAS-8	Describe the unique needs for information and communication technologies for diverse audiences.
IT-PGAS-3	Design and develop applications using objects.	IT-PGAS-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-PGAS-4	Design, develop, and implement accessible and usable interfaces, and analyze applications for engaging the user.		
IT-PGAS-5	Use and implement different digital representations of media.		
IT-PGAS-6	Evaluate an application design in terms of meeting privacy needs, legal and intellectual property requirements, and security considerations.		

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 <u>not accepted</u>. 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 ensure 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 the grade-level administrator.

COMPUTER USE:

Students will be required to access the Internet daily for 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

This course, 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 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 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: _____