

Programming, Games, Apps and Society

Instructor: Kym Johnson
E-mail Address: kjohnson.rhs@catoosa.k12.ga.us

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.

Software Used

Dr. Java, Greenfoot, Visual Basic 8 Express Edition

Class work

All assignments are posted on <http://www2.catoosa.k12.ga.us/fingertips/rhs/kjohnson.rhs/index.htm>.

Each student is required to complete daily assignments. If the student is absent, the work must be made up in the computer lab before or after school. The student should make arrangements on the day of return to make up class work. *All assignments will be weighted equally.* Students will read a variety of current events, magazine articles, internet research and technical textbooks to fulfill Ringgold High School's literacy goals.

Books and Sources

Pelland, P. Microsoft Visual Basic 2008 Express Edition: Build a Program Now!, Second Edition. Microsoft Press, 2008.

Regnicoli, L. Pialorsi, P. and Brunetti, R. Build Windows 8 Apps with Microsoft Visual C# and Visual Basic Step by Step. Microsoft Press, 2013.

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 (\$15.00) to benefit from the wealth of opportunities the organization has to offer.

Standards

IT-PGAS-1

Demonstrate employability skills required by business and industry.

IT-PGAS-2

Describe the software application life cycle and use a prototype development model to develop applications.

IT-PGAS-3

Design and develop applications using objects.

IT-PGA-4

Design, develop, and implement accessible and usable interfaces, and analyze applications for engaging the user.

IT-PGA-5

Use and implement different digital representations of media.

IT-PGA-6

Evaluate an application design in terms of meeting privacy needs, legal and intellectual property requirements, and security considerations.

IT-PGA-7

Develop applications that read real-world data from sensors, interpret the data, and respond to the real-world stimuli.

IT-PGA-8

Describe the unique needs for information and communication technologies for diverse audiences.

IT-PGA-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.

Career Opportunities

- É Computer Engineer
- É Game Developer
- É Programmer
- É Software Engineer

Other Information**Expectations for Academic Success**

- 1) Complete daily classwork assignments
- 2) Participate in discussions and ask questions
- 3) Participate constructively as a team member
- 4) Problem solve and accept challenges
- 5) Challenge yourself to continuously improve

Business Department Cheating Policy: No credit will be given for any assignment where cheating has occurred.

The syllabus may be updated as needed throughout the semester.