

Ola High School

HIGH SCHOOL COURSE SYLLABUS

COURSE TITLEProgramming, Games, Apps, and SocietyTERM 2024-2025

TEACHERRichard Hudnut ROOM #405

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Teacher Support	Help sessions are available after school by appointment

COURSE DESCRIPTION

Are you ready to design and develop? The course is designed for high school students to strategize, design, and develop mobile and desktop applications and basic games that can be produced in the real world. Students will learn about lifecycles of project development and use models to develop applications. Attention will be placed on how user interfaces affect the usability and effectiveness of applications. 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.

The pre-requisites for this course are Intro to Digital Technology, Computer Science Principles, and Advisor approval.

COURSE CURRICULUM CONTENT

COURSE 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- 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.
IT- PGAS 7 - Develop applications that read real-world data from sensors, interpret the data, and respond to the real-world stimuli.
IT- PGAS 8 - Describe the unique needs for information and communication technologies for diverse audiences.
IT- PGAS 9 - Organize personal online career portfolio for specific career interests.
IT-PGAS 10 - Explore how related student organizations (TSA) are integral parts of career and technology education courses through leadership development, school and community service projects, entrepreneurship development, and competitive events.

INSTRUCTIONAL MATERIALS AND SUPPLIES

Published Materials	Instructional Supplies
End Of Pathway Programming - Certiport Information Technology (IT) Specialist - HTML5 Application Development	Paper, pen or pencil, headphones

EVALUATION AND GRADING

Assignments	Grade Weights	Grading Scale
Classwork & Homework	Class Assessments 40%	A: 90 and above
Projects	Daily Work, Quizzes	B: 80 – 89
Unit Tests	Summative Assessment 40%	C: 74 – 79
Quizzes	Projects, Unit Tests	D: 70 – 73
Final Exam	Class Work 80%	F: 69 or below
	Final Exam - 20%	
	End of Pathway Exam	

OTHER INFORMATION

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

Employability Skills:

All classes within the pathway stress the importance of students learning and demonstrating appropriate and professional behavior. We refer to these intangible traits as “employability skills”. Students are provided more freedom to perform work and learn in teams in and outside the traditional classroom, but they are also held to a higher standard when it comes to behavior. Examples of bad behavior that will result in discipline action include but are not limited to:

- ✦ Misuse or use of cell phone or other electronic device inappropriately
- ✦ Taking other student’s property
- ✦ Inappropriate use of school equipment
- ✦ Non-Participation / Sleeping During Class
- ✦ Disrespectful behavior towards teacher or classmates

Rules & Class Conduct:

- ✦ Cellphones, ear buds and headphones ARE NOT ALLOWED in the classroom. Students should secure their phone in their locker or book bag. Phones should not be visible at all, this includes them being out even if they are just charging.
- ✦ Food and Drink (with the exception of water) are prohibited in the classroom.
- ✦ All book bags / back packs should be placed in the designated area upon entering the classroom and should not be on desks or lab tables.
- ✦ Unsafe behavior such as pushing others, throwing things or horseplay, will not be tolerated.
- ✦ Students are encouraged to actively participate in all discussions but remain respectful to their peers, the instructor and guest speakers.

Consequences for Inappropriate Behavior:

- ✦ 1st Offense Verbal warning from teacher
- ✦ 2nd Offense Verbal warning from teacher and email or phone call home to parents
- ✦ 3rd Offense Discipline referral to Administrator

*Violations of school policies such as inappropriate language, dress code, fighting, skipping class, drugs or weapon possession or other serious offenses will be immediately referred to school administrators for appropriate discipline without warning(s).

The syllabus may be updated as needed throughout the year.