Exploring Engineering and Technology



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Welcome:

My name is Ashley Exantus (pronounced *X-zan-tus*), and I'm excited to be teaching 8th Grade Foundations of Secure Information Systems at A.R. Johnson this year.

I've been teaching for 12 years and hold a Bachelor's in Elementary Education from Florida State University and a Master's in STEM Education from Walden University. My family has lived in Georgia for 9 years due to my husband's active-duty service in the U.S. Army, though we're originally from Florida. We have two wonderful boys, Exavier and Archer. I look forward to working together to support student success and create a positive learning environment!

Course Overview:

In Computer Science for Innovators and Makers, students explore the foundations of computer science while bringing their ideas to life through physical computing. They will learn how to program electronic devices to interact with the world around them, blending coding with engineering and problem-solving skills.

Students will design and code interactive systems using inputs and outputs such as lights, sensors, and motors. They will apply the design process to create prototypes that solve real-world problems and make their lives easier, safer, or more fun. Students develop critical thinking, communication, and creativity skills. At the end of the course, students will have built and programmed working devices and will better understand how computer science powers innovation in our everyday lives.

<u>Unit 1: Innovative Technologies:</u> What is Computer Science?, Inputs, Outputs, and Processing, Programming Basics with block-based code, Physical Computing with microcontrollers

<u>Unit 2: Interactive and Intelligent Devices:</u> Sensors, Conditionals, Variables, User-Interactive Systems

<u>Unit 3: Desing Challenge:</u> Problem Identification, Research, Prototyping, Testing, Redesigning, Presenting

LaunchPad, Canvas, and Textbook:

- Launchpad is our single sign on platform. All the apps/webtools that students will access throughout the school
 year, in all their courses, can be found here. You may also download the Classlink app to your device to access
 Launchpad from your phone or tablet.
- Our learning management system, Canvas, can be found in each student's Launchpad. The courses they are registered for will be displayed on the Dashboard in Canvas. Click on each course to find announcements, assignments, and all online instruction. You may also download the Canvas app for parents and the Canvas app for students to your cell phone or tablet.
- There is no textbook for this course.

Materials List:

- Pencil(s)
- Graphing Composition Notebook
- Charged Laptop

Grading Policy:

Middle and High school student performance will be recorded and reported in all courses by numerical grades, based on a 100-point scale.

- Calculation of Final Grades Final grades will be determined by the cumulative semester average using the following criteria:
 - Minor Grades = 60% Examples include quizzes, labs, and other graded assignments to assess certain standards in a unit of study. Minimum number of minor grades per 6-week progress report period = 5
 - Major Grades = 40% Examples include unit tests, essays, research papers, project-based assignments, and other culminating assessments to measure mastery of standards that comprise a unit of study. Minimum number of major grades per 6-week progress report period = 2

Late/Missing Assignments:

Late work is defined as assignments that are submitted after the specified deadline. This does not apply to work submitted late due to absence from school. Students are expected to submit assignments on time.

Multiple incidents of late work may result in teacher-student-parent conferences to examine and correct the student's work habits through an academic contract. Scores may be reduced by 5% per school day for a 25% maximum reduction (five school days). Late work submitted after the fifth school day will only be accepted at the teacher's discretion.

Relearn/Reassess:

Students who perform below 70% on a major assignment will be given the opportunity to relearn and reassess to show improvement in their mastery of the standard.

Students will submit a Relearning Plan as part of this process. This plan should include:

- Analysis of their errors or misconceptions on the previous major assignment.
- Complete assignments provided to relearn the content for mastery. Students may also attend a tutoring session.
- Complete and turn in any missing assignments.
- Commit to date(s) and time(s) to redo the assignment or retake the assessment.
- Share the plan with their parents and teacher for approval and signatures.

Upon satisfactory completion of the plan, as determined by the teacher, student should be given a minimum of one opportunity to be reassessed.

Teachers should have discretion to determine if R&R opportunities will be given for any minor assessment.

Tutoring:

Tutoring is available as needed by appointment only. Please contact teacher if you are interested.

Classroom Management Policy:

Behavior Expectations:

- Be respectful to teachers, classmates, and equipment
- Follow directions the first time they are given
- Use class time wisely and stay on task
- Take care of tools, technology, and classroom supplies
- Ask for help when needed, and help others when you can

Positive Reinforcement:

- Spotlight Points
- Positive Calls or Messages Home

Consequences:

- Reminder/Warning
- Parent Contact and/or Lunch detention
- Office Referral

Professional Attire:

Students are to dress professionally every Wednesday to develop an understanding of professional attire in careers and industries. This requirement is aligned with GADOE Standard 1- Demonstrate employability skills required by business and industry. Students who choose to participate in this will earn spotlight points.