

Exploring Computer Science

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Room Number: 323

Prep Period: A-Day 4th.. Period

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Course Description

In today's world Computer Science is an ever-changing technology. Exploring Computer Science provides students a hands-on experience that builds knowledge, logic and problem solving skills that translate to our modern world. Students not only see how computer science operates within the classroom, but how it applies in real world demands.

This lab incorporates individual and group programming logic activities that help students learn computer logic and problem solving skills. Students will first understand the computer hardware functionality and the computer software implementation. Software applications (Word, Power Point, and Excel) will also be explored. Software design and development cycles will be learned and used in classroom projects. This class will also give students an opportunity to do research about computer science topics and career opportunities.

This class will challenge students to discover the underlying principles of Computer Science and apply those principles through the use of critical thinking, problem solving, decision making, hands-on activities, and team effectiveness. It facilitates not only the mastery of technological subject matter, but a mastery of the process of learning. AMES Computer Science promotes individual exploration, creativity, innovation and encourages team collaboration.

Course Objectives:

- Expand basic reading skills by gathering information for a variety of activates
- Expand basic writing skills by completing various lab activities and assignments
- Develop skills in cooperative learning through participation in team learning
- Improve technical skills as well as interpersonal skills
- Learn how to confront challenges, solve problems, and find information
- Develop technical literacy and awareness
- Develop personal skills related to future education and employment
- Discover the fun and joy from learning about technological topics

Grading Schedule:

Attendance **30%**

Class Participation **35%**

Students will be evaluated daily;

- Use of class time
- Following class rules
- Quality of work submitted
- Attitude toward learning

Assignments **20%**

Tests/Quizzes **15%**

Letter grades will be assigned to the final percentage totals as follows:

93-100%=A	83-86%=B	73-76%=C	63-66%=D
90-92% =A-	80-82%=B-	70-72%=C-	60-62%=D-
87-89% =B+	77-79%=C+	67-69%=D+	< 60% =F

Attendance:

Attendance grades reductions for each occurrence:

Excused absence = None, Unexcused absence = 5%, Tardiness = 2%

Class Participation Points:

Class participation points are designed to reward productive classroom behavior and effort. There is never enough lab time to experience and learn about everything that can be found in our technology lab facility. To maximize the time that is available, students are expected to put forth a full effort toward learning objectives of the class each time we meet. Students that are following class rules, making progress, and doing what is expected will earn 10 points each day. The following situations would cause points to be lost.

- Failure to attend class
- Leaving class early
- Arriving to class more than 10 minutes late
- Not abiding by class rules

Class Rules:

- No food or drink in the computer lab
- Come to class ready to work
- No Cell Phones , No hats, No personal music in class
- Arrive to class on time, do not leave class early
- Obtain teachers permission to leave class
- Use appropriate language(spoken, written, file names)
- Never alter system files in any way
- Obtain permission before accessing personal disk or storage devices
- Exercise good citizenship (assist others, use computers with care, clean up after yourself)

Preliminary Calendar of Instruction *(subject to change)*

Time Frame	Unit Title	Standards	Objectives
August	Human Computer Interaction	.Students will learn the history of computers and CS in today's world	Students will understand; <ul style="list-style-type: none"> • The history of computers. • The parts of a computer. • Machine logic of computing.
September	Problem Solving	Students will become computational thinkers as it relates to computer science.	Students will understand; <ul style="list-style-type: none"> • Problem Identification • Problem Solving Strategies • Data collection & problem solving • Binary Systems & Sorting
October	Introduction to Programming	Students will learn and understand the application of creativity to programming project	Students will use computer programming; <ul style="list-style-type: none"> • Programming Design • Creativity to Solution • Program Development (Scratch)
November	Programming Application	Students will demonstrate how to use their programming skills by creating their own project	Students will understand and use their programming skills; <ul style="list-style-type: none"> • Create a final project
December	Ethics and the Internet	Students will demonstrate and understanding of computer ethics.	Students will understand; <ul style="list-style-type: none"> • Copyright laws • Acceptable Use Policy • Rights of privacy
January	Skills Testing	Review & Preparation	<ul style="list-style-type: none"> • ECS Skills Test

Exploration of Computer Science

Please sign below to indicate that you have read the disclosure/syllabus document and then return this page to Mr. Webster. Please keep the rest of the document for your future reference. Returning this signed form is a homework assignment and will count as such toward your class grade.

Student Name: (Print) _____

Student Signature: _____ Date: _____

Parent/Guardian Name: (Print) _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian Phone Number: _____

Parents or Guardians: If you can give me your e-mail address, please do. This is by far the most effective way for us to communicate. I will send period reminders and updates via e-mail. People have found this e-mail update to be tremendously helpful in past years. Please be sure to give me your e-mail address, not the student's address.

Parent/Guardian E-Mail Address: _____

If there is anything that I should know about the student that would help me to do a better job of teaching them, please tell me here.
