Career and Technical Education

Syllabus

Computer Programming (26638)

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Office Hours: Warrior's Period

Course Description & Course Goals

Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ hypertext markup language (HTML) or JavaScript to create web pages. Students develop their employability skills through a variety of activities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

Yearlong Pacing Outline

Semester 1	
Unit 0: Introduction to This Course	
Unit 1: Introduction to Computer Programming	**Semester 2**
Unit 2: Number Calculations and Data	Unit 6: Functions
Unit 3: Making Decisions	Unit 7: Arrays
Unit 4: Repetition and Loops	Unit 8: 2D Arrays
Unit 5: Graphics	Unit 9: Internet
	Unit 10: Additional Topics in Computer Science

Course Competencies and/or Standards

Computer Programming standards are called competencies. The Virginia course name is Programming (6640). You can find the competencies for this course at this link.

Syllabus Quiz

In the Syllabus Quiz, there will be a question that says "Did you read the entire syllabus?" Please type your favorite flavor of ice cream in the box.

Class Expectations for Students and Teacher

- Students are expected to follow the Acceptable Use Policy as well as other school policies
- Please arrive on time
- Be mindful of your neighbors' workspaces
- During lecture time, please close your laptop and take off your headphones
- During work time (not quiz/test time), you are encouraged to work with others, but DO NOT do their work for them
- No food or drink in the lab area
- Keep the lab clean – no trash!
- When it is time to leave you should throw away any trash at your station, straighten the keyboard and mouse, and push in your chair.

Industry Credentialing Certification/Licensures

Credentials are industry certifications to validate student skill attainment to a potential employer or college admissions officer. These tests, recognized by industry, are at no cost to the student. Students in this course will be eligible to take:

Workplace Readiness Skills Exam -- Objectives found here

PCEP - Certified Entry Level Python Programmer - Objectives found here

Career & Technical Student Organization (CTSO)

A CTSO is a required co-curricular student professional organization that aligns with the course. While some activities may be done during class time, others are extracurricular activities. The CTSO for this course is called Future Business Leaders of America (FBLA). For additional information, see https://www.vafbla-pbl.org/ or contact Ms. Naughton

Academic Integrity

In this course, collaboration among students is encouraged. However, copying another's work or allowing your work to be copied is not acceptable and is a violation of Wakefield's academic integrity policy. Some assignments will require students to sign an honor pledge. By signing the pledge, students acknowledge their understanding of the honor policy and that they have not violated that policy in any way. The pledge states either:

"On my honor, I pledge that I have neither given nor received information on this assignment."

or

"On my honor, I pledge that I have only given [received] information on this assignment to [from] the following individual(s) . . . ."

Failure to abide by the honor code will result in consequences as laid out in the student handbook, but at minimum students will earn a zero on the relevant assignment.

Grading Overview

Grade Composition

The final grade for the course is determined using a "quality points" system. Each quarter will represent 20% of the final grade, and the final exam will also be worth 20%. Each quarter, students are assessed on the categories in the table below.

Category	Weighted Percentage	Description
Classwork	20%	Theoretical activities designed to allow the students to practice new skills. These are formative assessments.
Projects and Labs	50%	Theoretical and performance-based activities designed to allow the students to practice new skills. These are formative assessments.
Summative Assessments	30%	The student will demonstrate their competency attainment of technical skills. Summative assessments generally combine performance-based and theoretical application.

Homework - Policy Implementation Procedure I-11.2 PIP-1 Homework

Homework allows students to practice, prepare, study, and extend learning. Homework is not assigned as a behavioral consequence.

- **Grades 9-12:** maximum of a total of 60 minutes per week per course; an additional 30 minutes of independent, choice reading each night is recommended. Students who are enrolled in Advanced Placement, International Baccalaureate, and/or dual enrolled courses may be assigned additional work commensurate with the expectations of the course.

Final Exam Information

This course does have a final exam. Students whose overall grade for the year is already an A may request to be exempted from the exam.

Absences

Students are expected to complete all assignments. Students who are absent are expected to check Canvas to find out what they missed and to be ready to move forward upon their return. Missed work due to an absence is expected to be completed as outlined by Arlington Public Schools Attendance Policy. Help is available to students by contacting the teacher via email to make an appointment for academic support.

Late Policy

All work will have a due date and it is important to complete the work on-time as the technical skills in this course build upon each other. While late work is not penalized in the grade calculation, there is a finite amount of time in which missing assignments will be accepted. Assignments will not be accepted later than one week from the original due date. Missing work will be recorded in the Gradebook as "Missing" and calculated as a zero until submitted and graded.

It is understood that extenuating circumstances may arise in which work cannot be submitted on-time. In such cases, the student is expected to communicate with the teacher, in advance, so a conversation regarding a solution can be discussed.

Gradebook

All graded items will be in Canvas, and only Interim/Quarter grades will be entered in StudentVUE/Synergy

Grading Policies

APS Grading Policy Implementation Procedures (PIP) I-7.2.34 PIP-2

Letter Grade	Percentages	Quality Points	AP, IB, and Dual Enrollment Quality Points
A	**90, 91, 92, 93, 94,** 95, 96, 97, 98, 99, 100	**4.0**	**5.0**
B+	**87, 88, 89**	**3.5**	**4.5**
B	**80,** 81, 82, 83, 84, 85, 86	**3.0**	**4.0**
C+	**77, 78, 79**	**2.5**	**3.5**
C	**70,** 71, 72, 73, 74, 75, 76	**2.0**	**3.0**
D+	**67, 68, 69**	**1.5**	**2.5**
D	**60,** 61, 62, 63, 64, 65, 66	**1.0**	**2.0**
E	**0 – 59**	**0.0**	**0.0**

Note: Student grades reflect student achievement and not student behavior. Quarterly grades will round up when the percentage is .5 or higher. Work Habits, such as Homework,

will be reflected in the report card comments. + = Surpasses expectations, # = Meets Expectations, ^= Approaching Expectations and N = Needs Improvement.

Calculating Final Course Grades

Final grades will be calculated using quality points. Each quarter and final exam will count for 20% of the final grade.

Grade Rounding to Determine Final Course Quality Point	
3.75 to 4.0	A
3.25 to < 3.75	B+
2.75 to < 2.25	B
2.25 to < 2.75	C+
1.75 to < 1.25	C
1.25 to < 1.75	D+
0.75 to < 1.25	D
< 0.75	E

Daily Materials

- Each student must bring their fully-charged, school-issued laptop to class each day.
- Students are also responsible for knowing how to access, and regularly checking, their accounts to APS resources such as Canvas, email, and Google Drive
- We will be using a variety of internet and software resources, some of which are outlined below
- Students are recommended (*but not required*) to bring earphones to class.

Course Resources

We will be heavily using online resources. Additional resources may be introduced throughout the year.

- APS Canvas
- Repl.it
- Project STEM

Please review this syllabus with a parent or guardian, and complete "Syllabus Quiz" in Canvas by Tuesday, September 6, 2022