MVLA
2025-2026
COURSE INFORMATION SHEET

Course Title: Introduction to Computer Programming
CTE Pathway Sequence: Information & Communication Technology/Software Development
School: Los Altos High School
UC/CSU requirement: A-G Approved - Science (3rd year)
MVLA Graduation requirement: No
Textbook: Blown to Bits (bitsbook.com) by Abelson, Leeden, Lewis, Seltzer

Course Description:

This course is geared towards students who want to gain skills in computer programming or get prepared for AP CS. No prior experience is required. This course is still suitable for students who have taken a coding elective in middle school. Students will work with SNAP (a drag-and-drop programming language) to learn critical thinking, logic, and problem solving skills and then with Java where they will apply their knowledge of algorithms to code in a written format. Concepts learned include variables, functions, 1D and 2D arrays, and object oriented programming.

Student Learning Outcomes:

- Develop computer programming skills such as abstraction, logic, and algorithmic thinking.
- Develop projects using object-oriented principles
- Become prepared for the Computer Programming AP course.
- Increase awareness of computer science as a career and life skill.

Course Outline/Units of Study/CTE Industry Standards(If applicable to your course):

CTE.ICT.C.1.1 Identify the phases of the systems development life cycle, including analysis, design, programming, testing, implementation, maintenance, and improvement.
CTE.ICT.C.1.5 Track development project milestones using the concept of versions.
CTE.ICT.C.2.0 Define and analyze systems and software requirements.
CTE.ICT.C.2.2 Recognize and prevent unintended consequences of development work: programming errors, security issues, health and environmental risks, and privacy concerns.
CTE.ICT.C.3.0 Create effective interfaces between humans and technology.
CTE.ICT.C.3.1 Describe and apply the basic process of input, processing, and output.
CTE.ICT.C.4.0 Develop software using programming languages.
CTE.ICT.C.4.11 Document development work for various audiences, such as comments for other programmers, and manuals for users.
CTE.ICT.C.4.4 Identify and apply data types and encoding.
CTE.ICT.C.4.5 Demonstrate awareness of various programming paradigms, including procedural, object oriented, event-driven, and multithreaded programing.
CTE.ICT.C.4.6 Use proper programming language syntax.
CTE.ICT.C.5.0 Test, debug, and improve software development work.
CTE.ICT.C.5.3 Use strategies to optimize code for improved performance.
CTE.ICT.C.5.4 Test software and projects.
CTE.ICT.C.5.5 Evaluate results against initial requirements.

Assessment and Grading (BP 5121 / AR 5121): To ensure that every student has an equal opportunity to demonstrate their learning, the course instructors implement aligned grading practices and common assessments with the same frequency.

1. Grading categories and their percentage weights:
   Tests = 30% Quizzes = 20% Homework / Classwork / Projects = 40%
   Final = 10% For the semester grade, both quarters will count cumulatively.

2. Achievement evidence collected within each grading category: Grades will be based on test scores, quiz scores, classwork, homework, in-class projects and final project scores. Projects will be scored using a rubric that will be distributed in advance.

3. Grading scales: A 90 -100%; B 80–89%; C 70–79%; D 60–69%; F below 60%

4. Homework/outside of class practices (AR 6154): Students will be expected to finish the previous day's classwork (if not completed in class) and to complete the homework assignments to the best of their ability before the next class meeting. If a student does not finish a project in class by the due date, s/he will be expected to complete it outside of class. Full credit will be given to assignments that are completed and turned in by the due date.

5. Excused absence make up practices (Education Code 48205(b)): Students with excused absences will give additional days (the same amount as they were absent) to make up missed assignments for full credit. Missed tests and quizzes must be made up.

6. Academic integrity violation practices (LAHS Academic Integrity Policy): Honesty, trust and integrity are vital components of the education process. The Governing Board believes that academic honesty and personal integrity are fundamental components of a student's education and character development. The Board expects that students will not cheat, lie, plagiarize or commit other acts of academic dishonesty. Students and families should understand and act upon the values of academic integrity and should encourage the highest standards of academic behavior from themselves and their peers. It is assumed that all work completed for a class is original work created for that class, for a specific assignment. Violations of Academic Integrity will be dealt with in a manner consistent with the MVLA-LAHS Academic Integrity Policy. Please refer to the Academic Integrity policy in the student handbook. For categories A and C, the 'V' will be worth zero. For violations in category B, there will be a process for students to learn the material and show mastery of the content. Check with your teachers if you are unsure or unclear about his/her expectations regarding the use of the Internet.

7. Late work practices: Half credit will be given to non-project assignments turned in one week later and no credit after that. Projects turned in after one week will receive half credit. Final projects must be submitted by the end of the respective final exam period.

8. Revision practices: After a project has been submitted, students may resubmit an improved version to regain half the rubric points lost. If a student scores below 75% on a quiz, that score may be replaced with a maximum score of 75% if the student performs higher on the corresponding test. Students will be given one opportunity to retake any test (a different version) in which they scored below 75%. The maximum score for that retake is 75%.

9. Extra credit practices: Students will have the opportunity to receive extra credit on certain assignments and projects. The extra credit will be defined in advance of each assignment.

10. Additional grading practices: Some of the work done in this class may be done in groups of 2-3. Students will be assessed according to their final product, as well as their individual contributions.

11. LMS used: Canvas

12. Additional information: This class is taught by Career Technical Education certified teachers in Information and Communication Technologies.

Instructors' email addresses:

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