An introductory course in computer programming/software engineering and applications. The course introduces students to the fundamentals of computer programming. Students will learn to design, code, and test their own programs while applying mathematical concepts. Teachers introduce concepts and problem solving skills to beginning students through a programming language such as C++, C#, Java, Python, or JavaScript.

During first semester uses The second half of the year reviews and builds on the concepts introduced in the first semester. This semester introduces students to more complex data structures and their uses, including sequential files, arrays, and classes. Students will learn to create more powerful programs.

* Levels: 9-12
* Units of Credit: 1.0
* CIP Code: 11.0201
* Core Code: 35020000030
* Prerequisites: Secondary Math I, Keyboarding Proficiency, ECS, Computer Technology
* Skill Tests: #820 Computer Programming 1A (1st Semester) followed by language test(s) (2nd Semester)

**Goals of the Class:**

In this class, we are concerned about maintaining a blend of creativity and technicality. Some days exercising one more than another, but over time, we will grow in both. The artifacts that we create will be submitted in various file formats to Canvas and stored within individual portfolios that belong to you.

**Class Rules and Expectations:**

* Data loss is NOT an excuse for not submitting course work. If you need an extension, please contact Mr Kapptie. Students will be asked to save work in locations accessible outside of the lab i.e. personal Canvas storage (available under the student account link in Canvas), the student "M" drive or home directory (available on the Granite Portal), or other cloud services like Github (recommended for portfolios), Google Docs, Dropbox or OneDrive.
* Most course work is submitted directly to Canvas; students turning in printed work will lose 10% of a grade unless otherwise stated in the assignment.
* No food or drink in the lab. No questions. Please keep food and drink in the robotics build room or on Mr Kapptie's desk.
* Students must read and understand the Granite District Student Technology Agreement. Computer privileges can and will be eliminated if students persist with inappropriate activities. Students may NOT use the lab computers to play games or to view videos unless it is linked by Mr Kapptie (via Canvas) and is directly related to the learning objectives.
* Practicing good behavior is necessary at all times, but especially when a substitute is present. Any student who has his/her name turned in with a complaint by a sub receives an automatic 0 in Citizenship for the term.
* Excessive late work in the course may result in a drop in citizenship as well as a possible 10% reduction in overall score each block day it is not submitted to Canvas.
* Life happens... students receive one “Bad Hair Day” per term. This means that each student may redeem a low score for one regular assignment (not a starter, quiz, test, project or anything other than a regular assignment) not for points, but a classification that which will not factor the assignment towards a grade. Requests must be sent via a message in Canvas directly to Mr Kapptie. “Bad Hair Days” do not stack if unused.
* The personal electronics policy at Skyline is strictly followed in the lab with one exception; during individual work time, students may listen to personally owned music players with headphones. This policy is put in place so as to detract a student from using the computer to stream media, which is expressly against the AUP.
* Computer speakers are to be turned off during class time. Headphones will be permitted when assignments warrant their use.
* Students are allowed to re-submit work for full credit based on comments left on individual assignments. When re-submitting assignments in Canvas be sure to include ALL required files as previous submissions are overwritten! Mr Kapptie does not leave comments on assignments where there is no submission; bottom line, you are better off submitting partial progress. Extra credit is extremely rare.
* The computer lab will be open most days after school and typically after 7AM each morning. Lab is closed during lunch.
* We are paperless in this course for the most part. Printing is not to be abused. Mr Kapptie does not have a specific budget for this privilege. Printing is to be school related only and with permission on each job.

**CODING RULES (VERY IMPORTANT)**

* Copying and pasting code not initially typed by YOU is PROHIBITED.
* When asking for help, you must prove that your program CAN run with all but 1-5 commented lines.
* As projects grow in complexity, during class time we will use the two minute rule for direct support. This means, if we cannot identify an error in two minutes, you will be asked to message Mr Kapptie with the code in question. (This rule is enforced for the sake of fairness in class with respect to teacher/student time being equal.)

**Attendance Policy**

Skyline High School’s attendance and citizenship policy will be strictly followed during the course.

**Grading Scale**

This course uses the Granite School District model for Proficiency Based Learning (PBL). Students will be allowed to re-submit assessments under this grading model given that starters, learning activities and regular assignments within the unit are properly submitted and graded in Canvas.  Our grading scale, or rather the equivalence scale for proficiency-based letter grades are as follows:

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| A 3.51 – 4.00  A- 3.00 – 3.50  B+ 2.84 – 2.99  B 2.67 – 2.83 | B- 2.50 – 2.66  C+ 2.34 – 2.49  C 2.17 – 2.33  C- 2.00 – 2.16 | D+ 1.66 – 1.99  D 1.33 – 1.65  D- 1.00 – 1.32  F 0.00 – 0.99 |