

## Programming 12

### Overview:

Programming 12 is a continuation of the concepts and practices of Programming 11. Students will engage with higher-level programming processes and ideas through the use of Scratch programming, research-based inquiry, and Python programming.

### Content (This course may cover the following):

- *Design cycle; process of ideating, building, review, refinement*
- *Advanced programming structures; functions, class, object, methods for improving code structure*
- *Using standardized source code documentation; using appropriate resources*
- *Self-Documenting code; keeping records, notes, files of code that has been created or modified*
- *Use of appropriate tools for programming; static IDEs vs. Online IDEs, resources, StackOverflow*
- *Error handling and debugging; review process, logic solving, tools at use*
- *Use of Pre-built data structures; libraries, open-source, modification of existing code*
- *User Interface design; understanding and applying the importance of clean, easy-follow interfaces for maximum user efficiency*
- *Interpersonal skills for effective work and collaboration within IT sector; documentation, communication, time management, etc.*

**Assessment:** Marking in this course is based on a Cumulative System.

### 45% - Assignments

- Tasks that focus on a specific concept or a small set of concepts.
- Self-Reflection or Self-Assessment tasks and Quizzes.

### 55% - Projects

- Larger tasks or builds that demonstrate multiple concepts at the same time.

\*Category assignment and specific marking criteria will be provided with each task.

### Communication:

Website: [www.mrgoldsack.com](http://www.mrgoldsack.com)

Email: [mgoldsack@sd35.bc.ca](mailto:mgoldsack@sd35.bc.ca)

## **Fine Print (Classroom and Course Expectations)**

*Working in a classroom environment that combines education with employability skills will require a rigorous standard of classroom expectations that may be beyond the capabilities of some students. These standards are built upon the professional requirements seen in everyday workplaces. Failure to meet expectations will result in removal from the class.*

### **Behavior:**

- Respect toward the teacher, peers, and equipment must be demonstrated on a daily basis. There is a **ZERO-TOLERANCE** policy for those who fail to do so, resulting in immediate removal from the class.*
- It is required that students will arrive to class on time and be prepared to begin work immediately at the bell.*
- Foul language, inappropriate web usage or work is not tolerated. This includes bad humour, explicit images, swearing and anything that violates the human rights of anyone, anywhere. Freedom of speech does not supersede human rights.*

### **Work Ethics & Standards:**

- Students must maintain a high work ethic. That means using class time for class work.*
- Quality work is required at all times. This means using 100% of the time given to complete an assignment. This will vary in output for individual students.*
- Original work is always required. Using images from databases is allowed only when specified by assignment or project guidelines. Plagiarism is strongly prohibited and will result in a score of zero and may be subject to a failing grade in the course.*

### **Common Sense:**

- Students are required to stay on track with assignments for this course, as well as keep track of deadlines or missed work. There will be multiple ways to check on assigned work via the course website, classwork board, and actually talking to the teacher.*
- Students should back up their work to avoid late assignments due to computer or human error. Please use your OneDrive Cloud Storage or a USB drive to back-up your work. Back-up using email or other means is another option.*