

Programming 11

Overview:

Programming 11 covers a number of areas related to programming trends and practices. Learners will explore and engage with introductory programming languages through Scratch programming and Python. As well, they will have the opportunity to build and develop problem-solving skills and processes and gain an understanding of the foundational programming concepts involved in coding practices.

Content (This course may cover the following):

- *Computational Thinking Process; step by step, clear, explicit, consistent.*
- *Structures in Code; input, output, loops, functions, variables, numbers, strings, boolean*
- *Problem Decomposition; breaking a larger problem/project/idea into smaller, manageable problems.*
- *Programming Language Constructs; understanding the differences and similarities in selected languages, and how they can be used in building.*
- *Translation of design ideas into source code; working out ideas in a test space.*
- *Tools to aid in the development process; applications to build, modify, and present ideas.*
- *Modifying existing code to meet a particular purpose.*
- *Predicting and Troubleshooting effects of code modification; debugging and logic.*
- *Inline commenting; explanation, rationale, clarity of work.*
- *Appropriate use of technology, including digital citizenship, etiquette, and literacy.*

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

Email: 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.*