

Course Outline

Grade 12 Computer Programming and Computer Science

Teacher: Mr. Stewart

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project review. Students will also analyze algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field.

Materials Required

While most course work will be done on the computer, there will be some handouts and written tasks. Therefore, students should come to class each day with writing utensils, lined paper, and a binder to store notes. A full binder devoted to the course is not required, but a section within an existing binder is recommended.

The software we will be using is freely downloadable on Windows and Mac computers, should a student decide to work on the course outside of class time. However, sufficient time will be provided to complete assignments during the class periods for students who attend regularly.

Use of personal electronic devices is generally prohibited during class time. Please refer to current school policy for details.

Tests, Quizzes and Assignments

It is important to meet deadlines. While assignments will typically be accepted past the deadline, late submissions can affect the learning skills portion of the report card and can lead to student stress as unsubmitted work begins to accumulate. When late assignments are marked, the extra time taken by the student to complete the assignment may be taken into consideration when determining a grade.

A student who is absent the day of a quiz or test should be prepared to complete it on the day they return. Students who also have authorized absences for at least one day leading up to the evaluation may request an extra day of preparation upon returning prior to completing the evaluation.

An unauthorized absence on an evaluation day may result in a student forfeiting their opportunity to complete the evaluation, and depending on circumstances, a grade of zero may be assigned.

Policy for Use of AI and Other Resources for Assignment Completion

When used appropriately, generative AI (as approved by the SCDSB), resources found online, and solutions derived through the assistance of others can all enhance the learning experience.

When choosing to make use of such resources, students should ask themselves:

- Am I using the resource in a way that will help me become better at what I am learning, as opposed to just using it to help me get a better mark?
- Am I being transparent about the resources I am using in my submitted work?

If the answers to both of these questions is **YES**, then use of the resource is probably fine. Please note that it is rarely useful to paste code that has been found elsewhere into assignments. If students come across a complete solution, their best strategy is to look through it, then try to implement it on their own without looking.

To ensure fair evaluation in light of the vast number of external resources available, submitted work that is at a level well beyond what I know a student is normally capable of might not be integrated into the final grade if excessive use of external resources is suspected. If I'm unsure if a submission is a true demonstration of a student's abilities, the student will be given the opportunity to demonstrate their understanding by walking through the process they went through to complete the task. This is particularly true of submitted work that I did not personally observe the student working on.

Course Mark Determination

I have developed the process outlined below by taking into consideration the Ontario Ministry of Education policy shown in the box to the right, along with considering the most effective methods for assessing and quantifying student achievement with respect to this particular course. Due to the combined objective and subjective nature of this process, student grades will only be available at midterm and at the end of the semester, as opposed to on an ongoing basis. I can provide at any time, however, the evidence I've collected that will go towards the determination of an overall grade, and am happy to assist students with coming up with a rough current estimate based on that Information.

Teachers will take various considerations into account before making a decision about the grade to be entered on the report card. The teacher will consider all evidence collected through observations, conversations, and student products (tests/exams, assignments for evaluation). The teacher will consider the evidence for all the tests/exams and assignments for evaluation that the student has completed or submitted, the number of tests/exams or assignments for evaluation that were not completed or submitted, and the evidence of achievement that is available for each overall expectation for a subject in a particular grade or course. In addition, the teacher will consider that some evidence carries greater weight than other evidence; for example, some performance tasks are richer and reveal more about students' skills and knowledge than others. Teachers will weigh all evidence of student achievement in light of these considerations and will use their professional judgement to determine the student's report card grade. The report card grade represents a student's achievement of overall curriculum expectations, as demonstrated to that point in time.

Determining a report card grade will involve teachers' professional judgement and interpretation of evidence and should reflect the student's most consistent level of achievement, with special consideration given to more recent evidence.

Step 1 - Gathering Evidence of Achievement

The teacher will gather evidence of student achievement of the overall curriculum in three general ways:

Class Assignments

For most assignments, there will be informal student/teacher conferences where the teacher will provide feedback and the student will provide insight into the process and thinking that went into their work. The assignment will be rated in two areas, using the rating scale shown to the right:

1. **Core Skills** – The extent with which the student has applied the skills required by the assignment.
2. **Depth of Understanding** – The extent with which the student has demonstrated higher order thinking skills through enhancement or extension.

Meeting minimum assignment requirements will earn levels of **Meets Expectations** in each category.

Class Assignments Rating Scale

Vastly Exceeds Expectations
Exceeds Expectations
Meets Expectations
Approaching Level of Expectation
Evidence of Skill Development
No Evidence Yet of Skill Development

Formal Assessments

These include assessments such as tests and quizzes that take place in a controlled environment. These will be evaluated numerically.

Informal Observation

Consideration of teacher observations throughout the course that fall outside of the above areas.

Step 2 – Determination of Grade Range

This chart provides a framework for grade determination based on gathered evidence. It is important to acknowledge that not every student will fall neatly into one of the categories in the chart, and in some case further teacher discretion will need to be applied to determine the most appropriate mark range. Generally speaking, the vast majority of assignment work should be complete at the **meets expectations** level to earn 80+ on the report card.

Mark Range	Core Skills	Depth of Understanding	Formal Assessment Results
94+	Regularly exceeds expectations	Frequently exceeds expectations	Most consistently 85%+
88-93	Frequently exceeds expectations in at least one of these two areas. Generally meets expectations with respect to core skills.		Most consistently 80%+
80-87	Sometimes exceeds expectations in at least one of these two areas. Generally meets expectations with respect to core skills.		Most consistently 80%+
74-79	At least 80% assignment completion at the approaching expectations level or higher.		Most consistently 70%+
68-73	At least 70% assignment completion at the approaching expectations level or higher.		Most consistently 65%+
60-67	At least 60% assignment completion at the approaching expectations level or higher.		Most consistently 55%+
50-59	At least 50% assignment completion at the development level or higher.		Most consistently 50%+
49-	Insufficient Evidence Demonstrated		Most consistently less than 50%

Step 3 – Determination of Final Grade

The specific term mark will be a judgement call based on where the teacher has observed the student falls within the range. At midterm, this will represent the report card mark.

At the end of the course, this value will be prorated to 70% of the report card mark, while the remaining 30% will be devoted to the following culminating tasks:

- Final project in the last few weeks of the course (10%)
- Practical exam component completed near the end of the course (10%)
- Written exam component completed on our designated culminating activity date (10%)

Course Success Factors

1. Stay Engaged
2. Do the Work
3. Ask Questions

I look forward to working with you this semester!