

JOHN FRASER SECONDARY SCHOOL
COURSE OVERVIEW

Department: Business/Technology

Course Fees: None

Course: Computer Science, Grade 12, University Preparation

Code: ICS4U0

Prerequisite: ICS3U – Intro to Computer Science

Credit: 1.0

COURSE DESCRIPTION

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 analyse 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.

OVERALL EXPECTATIONS

- To understand the basic concepts of Computer Science, software development, algorithms and data structures, program correctness and efficiency
- To develop skills, strategies, and habits of mind required for problem solving
- To relate technology to professional and ethical responsibility

EVALUATION

- Assessment/evaluation will be based on provincial curriculum expectations
- Students will be provided numerous/varied opportunities to demonstrate their achievement
- Assessment/evaluation is based upon how well the student demonstrates their learning in the four categories of achievement

ASSESSMENT AND EVALUATION

Communication 20%	Knowledge 10%	Thinking 20%	Application 20%	Summatives 30%
Sample tasks include: <ul style="list-style-type: none">• Essays• Presentations• Interviews• Displays• Test answers	Sample tasks include: <ul style="list-style-type: none">• Quizzes• Tests• Diagrams• Assignment	Sample tasks include: <ul style="list-style-type: none">• Research• Supported opinion• Problem solving• Program debugging	Sample tasks include: <ul style="list-style-type: none">• Program development• Application of technology to environmental and societal issues	The final summative portion of the course will consist of one or more of: <ul style="list-style-type: none">• An exam• A course-end project

Skills such as the ability to work independently, demonstrate teamwork, efficient work/study skills, and initiative will be assessed and reported separately from the subject grade.

DEADLINES

Why are deadlines set for assigned work?

Deadlines are realistic in the normal working life outside of the school setting. Deadlines are also set as a reasonable management strategy for teachers so that workloads can be varied and balanced. We also set deadlines as a way of bringing closure to one unit of work and moving ahead to another.

- It is **your** responsibility to seek assistance from the teacher when you feel unable to complete a task / assignment due to insufficient knowledge or skill. Ensure that you have also sought the assistance of your peers if you have difficulties get answers immediately from your teacher. It is **not** acceptable to advise the teacher of difficulty the day before / on the day a task / assignment is due.
- It is **never** acceptable to submit work late without negotiating alternate deadlines.
- Some deadlines are negotiable, some are absolute. If you do not submit / complete work on either a negotiated or absolute deadline that work will not be assessed / evaluated. In those cases you will receive a mark of zero for that particular task.
- Chronic lateness in submitting tasks / assignments may prevent your teacher from evaluating your work and may require you to demonstrate your knowledge and skills within an alternate setting such as summer school

ATTENDANCE

- Regular attendance at school is critical for the student's learning and achievement of course expectations

TIPS FOR SUCCESS

- Keep notes current and organized
- Complete homework and class work as assigned
- Review notes on a regular basis, not just the night before a test/quiz/assignment due date
- Think about ways to connect what you are learning to other classes/out-of-school situations

EQUIPMENT / MATERIALS

- Students require a binder or notebook, whether **physical or electronic**, pens, pencils, a ruler, and a calculator
- Occasionally additional materials will be needed for projects and assignments
- A personal laptop is not necessary, but is useful to have

PLAGIARISM & DISCIPLINE

It is **expected** that students will produce **their own** original work. It is also expected that students will require the use of examples to gather a full understanding of the work they are completing. Students **must** cite all sources that they are using to gather their information to complete their work.

Electronic theft, misrepresentation of original work, cheating, theft of instruments, use of unauthorized aids, and false representation of identity will result in appropriate consequences.

Consequences will depend on the severity of the situation; however, they can include: giving a zero on the evaluation, suspension from school, loss of credit, and/or contact with the police.