Cawthra Park Secondary School Computer Science Department
Computer Science, Grade 12 University
Course Overview

COURSE CODE: **ICS4U**   **ACTING HEAD:**   **J. Garvin**
PREREQUISITE: **ICS3U**   **CREDITS:**   **One**

GOALS OF THE COMPUTER SCIENCE PROGRAM

1. To develop a general understanding of fundamental programming concepts and practices.
2. To make connections between theoretical concepts and real-world applications of programming.
3. To foster strong analytic and critical-thinking skills by developing solutions to a variety of problems.

OVERVIEW

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.

COURSE STRANDS

Programming Concepts and Skills   Software Development
Computer Environments and Systems   Topics In Computer Science

ASSESSMENT AND EVALUATION

Evaluation in this course may be diagnostic, formative, or summative. A student's final mark is made of two parts:

1. Term Evaluation   70 %
2. Final Evaluation (15% Culminating Program, 15% Final Exam)   30 %

Teachers use their **professional judgment** to determine a final mark, based on the following four categories:

1. Knowledge and Understanding: Subject-specific content acquired in the course (knowledge), and the comprehension of its meaning and significance (understanding).
2. Application: The use of knowledge and skills to make connections within and between various contexts.
3. Thinking: The use of critical and creative thinking skills and/or processes.
4. Communication: The conveying of meaning through various forms.

Students' **learning skills** and **work habits**, including timely completion of homework and assignments, attendance and punctuality, collaborative work, and responsible student behaviour, will also be assessed on an ongoing basis.

USE OF PERSONAL DIGITAL DEVICES

With teacher approval, devices may be placed on desks, in silent mode, and used discreetly during class time for class-related work, time-management and planning, or other academic uses. Inappropriate use of digital devices may result in this courtesy being revoked.

ADDITIONAL INFORMATION

Cawthra Park can be a very busy place. Students should establish deadlines and assessment dates with their teachers in advance, when possible. Strong time-management skills are essential in computer science, as many concepts will require self-directed learning or consolidation. Plagiarism, including misrepresentation of original work, cheating, theft of evaluation instruments, use of unauthorized aids, and false representation of identity, will result in appropriate consequences. Please refer to the Student Handbook under the "About Us" section of the Cawthra Park website (http://www.cawthrapark.com) for more details on assessment and evaluation policies.