COMPUTER SYSTEMS TECHNOLOGY DIPLOMA

Purpose

The purpose of the Computer Systems Technology (CST) Diploma program is to prepare students for a career as a computer systems software technologist specializing in developing web and Windows software applications using popular development platforms and tools. Computer systems software technologists generate software solutions for the general public, businesses, government agencies, utilities, law enforcement agencies, health services providers, educational institutions and more. Graduates will be able to work as junior software developers in the software development industry.

Students gain a solid foundation in software design, development, testing, and deployment using common platforms and environments. The first year of the program focuses on building a strong foundation in computer systems, and in software design and analysis. In the second year of the program, students take advanced courses in web technologies and mobile application development, User Interface and Experience design, as well as in the modern Windows application ecosystem. CST instructors are industry-experienced professionals who are strongly connected to the local Information Technology industry.

Duration

The CST diploma program can be completed in 5 terms of full-time study (average 17 credits per term), with an expected completion time of 2 years. There are 3 terms Fall, Winter, and Summer per year. The Summer term is a shorter term which means the month of August is a break month. The program must be completed within a maximum of 5 years. CST diploma accepts students for Winter and Fall terms.

Learning Outcomes

Upon successful completion of this program, graduates will be able to:

1. design, analyze, and develop complex software application systems for PC, Web, and Mobile devices
2. design, analyze, develop, debug, and optimize web and mobile applications written in popularprogramming languages such as Python, JavaScript, Java, C++ and C#
3. develop and design interactive web pages/mobile apps with multimedia components
4. install and configure basic computer hardware and software
5. collaborate efficiently in a typical software project team working with popular project development tools andcurrent development frameworks
6. work in large and small teams as an effective team member
7. learn new tools and technologies independently following the latest trends in software and hardware

Admission Requirements

- Grade 12 graduation or equivalent
- English 12 with a minimum 'C' grade, or English Language Proficiency (https://www.vcc.ca/applying/registration-services/english-language-proficiency-requirements/) at a minimum Grade 12 'C' level, or equivalent
- Knowledge of mathematics demonstrated by *one* of the following:
  - Pre-calculus 12 with a minimum grade of 'C' (60%) or equivalent
  - Foundation of Mathematics 11 with a minimum grade of 'C +' (65%) or equivalent
  - VCC Pre Calculus assessment with a minimum grade of 72%
  - VCC Intermediate Algebra assessment with a minimum grade of 52%

Program Requirements

In the First Year students complete the f*oundational/core* courses. In the second year students take advanced software development, web, mobile, and Windows PC specialized courses. In the last term, students focus on developing an industry-scale *Portfolio/Capstone* project as a team.

Code	Title	Credits
Year 1 (Foundation Courses)		
CSTP 1101	Comm & Workplace Behaviour	3
CSTP 1104	Computer Systems Admin	5
CSTP 1105	Introduction to Programming	4
CSTP 1106	Website Development	3
CSTP 1108	Applied Mathematics	2
CSTP 1201	Intro to Database Mgmt Systems	4
CSTP 1202	Intro to Data Com & Networking	3
CSTP 1205	Programming in C++	4
CSTP 1206	Intro to Intrnt Prog & WebApps	3
CSTP 1204	Software Analysis and Design	3
CSTP 1302	Windows Programming	4
CSTP 1303	Intro to Client-Srvr Computing	3
CSTP 1304	User Interface Design	2
CSTP 1305	Algo Analysis & Data Structure	3
Year 2		
CSTP 2104	Windows Interactive App Prog	3
CSTP 2110	Intro to Cloud Computing	3
CSTP 2106	Intro to Computer Security	3
CSTP 2107	Adv Internet Prog. & Web Apps	4
CSTP 2108	Mathematics for Programmers	2
CSTP 2204	IT Development Project	5
CSTP 2205	Android Mobile App Programming	3
CSTP 2208	Career Path Search	1
CSTP 2301	Emerging Technologies	3
CSTP 2305	iOS Mobile App Programming	3
Total Credits		**76**

This guide is intended as a general guideline only. The college reserves the right to make changes as appropriate.

Evaluation of Student Learning

Students are evaluated through the completion of assignments and projects, critiques, and quizzes (both written and performance-based), and meeting course project's milestones and objectives. Most assignments and projects include the process of initial concept stage, work in progress, and final submissions, which can include reflections and client feedback. Professional conduct (which includes collaboration and teamwork, time management, organization, communication, participation and attendance) will also affect the final grade in each section.

To progress through the program and receive a Diploma in CST, students are required to achieve a minimum grade of 'C' (60%) in each course.

Prior Learning Assessment and Recognition (PLAR)

Prior learning assessment and recognition is not available for this program.

Transcript of Achievement

The evaluation of learning outcomes for each student is prepared by the instructor and reported to the Student Records Department at the completion of semesters.

The transcript typically shows a letter grade as a grade for each course. The grade point equivalent for a course is obtained from letter grades as follows:

Grading Standard

Grade	Percentage	Description	Grade Point Equivalency
A+	96-100		4.33
A	91-95		4.00
A-	86-90		3.67
B+	81-85		3.33
B	76-80		3.00
B-	71-75		2.67
C+	66-70		2.33
C	61-65	Minimum Pass	2.00
C-	56-60		1.67
D	50-55		1.00
F	0-49	Failing Grade	0.00
S	70 or greater	Satisfactory – student has met and mastered a clearly defined body of skills and performances to required standards	N/A
U		Unsatisfactory – student has not met and mastered a clearly defined body of skills and performances to required standards	N/A
I		Incomplete	N/A
IP		Course In Progress	N/A
W		Withdrawal	N/A
Course Standings			
R		Audit. No Credit	N/A
EX		Exempt. Credit granted.	N/A
TC		Transfer Credit	N/A

Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.

2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.

3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.