



## CSTP 1108: Applied Mathematics

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### EFFECTIVE DATE

September 2019

### DEPARTMENT

Computer Systems Tech Diploma

### DESCRIPTION

The purpose of this course is to give students a strong mathematical foundation for future technical and programming courses. This course deals with linear systems of equations and various common function types and their properties. Students will learn how to solve linear equations and how to draw graphs of common functions such as polynomials, periodic functions, logarithmic and exponential functions. In addition, the basics of number representation in computer science are studied.

### CREDITS

2.0

### YEAR OF STUDY

1st Year Post-secondary

### PREREQUISITES

None

### COREQUISITES

None

### COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Explain different types of functions commonly used in software development
- Demonstrate the ability to convert numbers from one base to another
- Demonstrate the ability to draw the general graph of a function using its properties
- Solve a linear system of equations with at most 3 unknowns
- Describe how integer and floating point numbers are represented digitally
- Describe how text characters are represented in computer programs

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 40

## INSTRUCTIONAL STRATEGIES

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

C

## EVALUATION PLAN

Type	Percentage	Assessment activity
Assignments	50	5 assignments
Midterm Exam	25	
Final Exam	25	

## COURSE TOPICS

- Function types
- Linear equations
- Positional numeration system
- Graphing of functions
- Base-n arithmetic
- Number and character representation in code

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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**Downtown campus**

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