VANCOUVER COMMUNITY COLLEGE

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CSTP 1105: Introduction to Programming

EFFECTIVE DATE

September 2019

DEPARTMENT

Computer Systems Tech Diploma

DESCRIPTION

This is an introductory course on programming. Learners will develop problem-solving skills through the use of detailed algorithms and be introduced to structured and object oriented design techniques. The course content includes standard program syntax, variable types, operators, input/output statements, decision and loop control structures, methods, encapsulation, instantiating and using objects. The course is taught in Python to keep the focus on programming language-neutral.

CREDITS

4.0

YEAR OF STUDY

1st Year Post-secondary

PREREQUISITES

Admission to the Computer Systems Technology diploma program

COREQUISITES

None

COURSE LEARNING OUTCOMES

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

- Explain programming terminology
- Describe processes involved in programming
- Create a program using tools and styling conventions
- Create a program that uses variables
- Create a program that uses input and output
- Use a debugging tool
- Create a program using decision statements
- Create a program using repetition structures

- Create a program using methods
- Create a program using objects and object oriented techniques
- Design reusable classes through simple inheritance and interfaces

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 40
Lab: 60

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	60	one programming assignment per week, except 2 weeks of exams.
Midterm Exam	20	
Final Exam	20	

COURSE TOPICS

- Programming processes and terminology
- Programming tools and style conventions
- Using variables in programming
- Using input and output
- Debugging tool
- Strings and operators
- Using a program to create decision statements

- Repetition structures
- Object techniques
- Polymorphism

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 .