Official Course Outline Information

Academic Year: 2022-2023

Course Name: Introduction to Computing

Course Code: CMPT 1011

Official College Calendar Description (as stated in curriculum map)**:**

This course introduces learners to fundamental concepts in computing science, including logic, algorithms and their properties, and control constructs of sequence, selection, and repetition. Students will learn the basics of data, including types and representation, and will learn to do some computing using simple programming languages. The elementary computing and data theories in this course can be applied to a wide range of careers and industries.

Credits:	3					
Total Course Hours:	81 hrs					
Structure of Hours:	**Lecture:**	45 hrs	**Lab:**	36 hrs	**Other:**	0 hrs
Prerequisite(s):	None.					
Co-Requisite(s):	None.					
Equivalent Course(s):	None					
Delivery Mode:	Hyflex & In-person					
Faculty:	Faculty of Business, Environment, and Technology					
Program:	Machine Learning Analyst					

Course Goals/General Learning Outcomes (as stated in curriculum map)**:**

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

1. Explain fundamental concepts in computing science.
2. Define programming to solve problems.
3. Examine different data types and manipulating variables.
4. Construct the program flow using conditionals and iterations.
5. Organize programs using functions.
6. Apply different data structures in the programming language.

Course Units/Modules:

This course consists of the following units/topics:

1. Introduction to Computing Science
2. Programming for Problem Solving
3. Data Types, Operations and Statements in Python
4. Python Built-in Functions
5. Program Flow Control
6. Define Your Own Functions
7. Strings
8. Lists and Tuples
9. Dictionaries and Sets

Required Textbooks and Resources:

Downey, Allen B. (2015). Think Python 2nd Edition. Green Tea Press. https://greenteapress.com/wp/think-python-2e/

Deitel, P & Deitel, H. (2020). Intro to Python for Computer Science and Data Science: Learning to Program with AI, Big Data and the Cloud. Pearson Education, Inc.

Course Evaluation (as stated in curriculum map)**:**

Quizzes	10%
Lab Assignments	30%
Coding Assignment	10%
Midterm Exam	20%
Final Exam	30%
Total	**100%**

Passing Level/Grading Scale:

Grades for each component will be added together at the end of the term. The final total will be translated to NorQuest College's four-point grading scale as follows:

Marking & Grade Conversion:

Letter Grade (post-secondary programs)	Grade Point Value (post-secondary programs)	Percentage Scale (Alberta Education courses / preparatory)	Description
A+	4.0	95–100	
A	4.0	90–94	Excellent
A–	3.7	85–89	
B+	3.3	80–84	
B	3.0	75–79	Good
B–	2.7	70–74	
C+	2.3	67–69	
C	2.0	64–66	Satisfactory
C–	1.7	60–63	
D+	1.3	55–59	
D	1.0	50–54	Poor
F	0.0	0–49	Failure

Safe Space Statement

At NorQuest College, we are committed to fostering a space where both students and staff can engage in honest conversations in a respectful, responsible, and thoughtful manner without fear of repercussions. We celebrate our differences, and we value continuous growth and learning from each other. We create a sense of belonging where we do not judge anyone based on biological sex, sexual orientation, gender identity or expression, race/ethnicity, religion, linguistic and/or cultural background, age, physical or mental ability, or any other aspect of one's person. NorQuest does not tolerate bullying, racism, or harassment. If you or another student or staff member are subjected to any of these actions, your voice will be heard and taken seriously. It is everyone's responsibility to nurture a space where each person can feel safe and respected.

Skills of Distinction

At NorQuest College, learners develop Skills of Distinction as a part of belonging to the NorQuest community. Through the Circle of Courage, learners build competence in Resilience, Inclusion, and New Ways of Thinking. These human skills prepare all learners for the changing workforce and the changing world.

Statement of Expectations

It is the student's responsibility to be familiar with and follow NorQuest College policies and procedures, including the Student Code of Conduct. Student policies can be viewed on the college website at https://www.norquest.ca/resources-services/student-life/student-policies.aspx. Policies specific to a program will be in the student handbook. If you have questions, please ask your instructor or program leadership team to get clarification.

Additional Information

(Please put N/A if none)

Minuimum Instructor Qualifications: Master of Science, Technology

Revision Date: August 26, 2024

Approved By (Program Chair or Dean)**:** Stephanie Husby, MSc., MBET

NOTE: Students are advised to keep course outlines in personal files for future use. These may be used to apply for transfer of credit to other educational institutions. A fee may be charged for additional or replacement copies.