SCIENCE DEPARTMENT

COURSE OUTLINE – FALL 2023

CS1140 – Introduction to Computing Science - 3 (3-0-3) 6 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR:	Ubaid Abbasi	**PHONE:**	780-539-2976
OFFICE:	C-427	**E-MAIL:**	UAbbasi@nwpolytech.ca
OFFICE HOURS:	11:30-12:30 Monday or appointment by email		

INSTRUCTOR:	Libero Ficocelli	**PHONE:**	780-539-2825
OFFICE:	C-307	**E-MAIL:**	LFicocelli@nwpolytech.ca
OFFICE HOURS:	TBA		

CALENDAR DESCRIPTION:

An introduction to Computing Science in which you learn to solve simple problems by writing small computer programs in JAVA. This course presents a high-level object-oriented computing model based on objects as well as primitive data types, control structures and methods. It will be limited to basic elementary algorithms and techniques for constructing elegant and robust solutions to simple problems. The laboratories will offer you the opportunity to translate concepts presented in lectures into interesting application programs.

PREREQUISITE(S)/COREQUISITE: Math30

REQUIRED TEXT/RESOURCE MATERIALS:

Introduction to Java Programming 12th Edition, Comprehensive Version, By Y. Daniel Liang, Pearson Publishing, ISBN   12th Edition 9780136520238

The 11th edition is acceptable
ISBN 11th Edition 9780134671048

Note: Additional handouts will be provided in class.

DELIVERY MODE(S):

This course includes 3-hours of lecture per week and a 3-hour lab per week

Lectures:	J202	Monday, Wednesday	08:30 - 09:50AM
	J228	Monday, Wednesday	08:30 - 09:50AM
Labs:	G111	Thursday	02:30 – 05:30PM
	A312	Thursday	02:30 – 05:30PM
	G111	Friday	02:30 – 05:30PM

LEARNING OUTCOMES:

- Be able to create, edit and run Java programs
- Write Java code to solve small defined problems
- Transform simpler operations into larger, integrated solutions
- Be able to debug programs (find and fix errors)
- Be able to design programs so that they are easy to maintain and update

TRANSFERABILITY:

UA, UC, UL, AU, KUC, GMU.

*Warning: Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities**. Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page http://www.transferalberta.ca or, if you do not want to navigate through few links, at http://alis.alberta.ca/ps/tsp/ta/tbi/onlinesearch.html?SearchMode=S&step=2

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Your final grade will be determined in the following manner:

Lab Assignments   **30%**
Quizzes   **10%**
Midterm   **25%**
Final Exam   **35%**

GRADING CRITERIA: (The following criteria may be changed to suite the particular course/instructor)

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100		C+	2.3	67-69
A	4.0	85-94		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

Chapter 1   Introduction to Java
Chapter 2   Elementary Programming
Chapter 3   Selection Statements
Chapter 4   Mathematical Functions and Strings
Chapter 5   Loops
Chapter 6   Methods
Chapter 7   Single-Dimensional Arrays
Chapter 8   Multiple Dimensional Arrays
Chapter 9   Objects and Classes
Chapter 10   Object Oriented Thinking
Selected topics from other chapters.

STUDENT RESPONSIBILITIES:

- The Student must pass the theory/concepts portion of the course in order to qualify for a passing grade for the term. In other words, a student must obtain 35 out of a possible 70 points (from exams/quizzes) before adding the lab assignment marks to compute the final grade. If you cannot achieve the required 50% (on exams) then regardless of your lab assignment grades, you cannot pass the course.
- No late assignments will be accepted. The student is responsible for adhering to all requirements as specified for each assignment.
- When necessary, lab time may be utilized for lecturing on specific Java features. The remainder of the lab time will generally be used as "hands-on" programming time.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct: Plagiarism and Cheating at https://www.gprc.ab.ca/about/administration/policies