

DEPARTMENT SCIENCE
COURSE OUTLINE – Fall 2026

ST1510 (B2): Introduction to Applied Statistics I – 3 (3-0-2) 75 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: Therar Kadri **PHONE:** (780) 539-2878
OFFICE: J209 **E-MAIL:** TKadri@NWPolytech.ca
OFFICE HOURS: M&R 10:00 AM -12:00 PM

CALENDAR DESCRIPTION:

The course includes data collection and presentation, descriptive statistics. Probability distributions, sampling distributions, and the central limit theorem; point estimation and hypothesis testing; correlation and regression analysis; goodness of fit and contingency table.

PREREQUISITE(S)/COREQUISITE: Prerequisites: Mathematics 30-1 or equivalent or Mathematics 30-2 or equivalent

REQUIRED TEXT/RESOURCE MATERIALS:

Open (free) textbook at www.lyryx.com: Introductory Statistics, Current Edition (by Illowsky, Dean, openstax) ([Click here](#) to go to download page!)

DELIVERY MODE(S):

Lecture:	B2	T R	8:30 – 9:50	A210
Lab:	BL1	M	2:30 – 4:20	A307

LEARNING OUTCOMES:

To demonstrate the basic knowledge of descriptive statistics and its use. To perform elementary analysis of research data and to interpret the results of statistical tests. To demonstrate a conceptual knowledge of the concepts and principles involved. To select the appropriate statistical test. To be able to enter and analyze data using the computer program EXCEL.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferralberta.ca>.

**** 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:

Assignments & Quizzes 10%:

Lab Reports 10%

Midterms 2 × 20% (Tentatively Week 5, Week 10)

Lab Exam 10% (BL1 Mon Dec 7)

Final Exam 30% (Cumulative, during exam period Dec 12 - 19)

Attendance: A bonus of 3% will be given to each student who has more than 65% attendance.

GRADING CRITERIA:

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:

Weeks	Chapters
Week 1 (Sep 3)	Chapter 1: Sampling and Data
Week 2 (Sep 8,10)	Chapter 2: Descriptive Statistics
Week 3 (Sep 15,17)	Chapter 2: Descriptive Statistics
Week 4 (Sep 22,24)	Chapter 2: Descriptive Statistics
Week 5 (Sep 29, Oct 1)	Chapter 3: Probability Topics
Week 6 (Oct 6,8)	Chapter 4: Discrete Random Variables
Week 7 (Oct 13,15)	Chapter 5: Continuous Random Variable Chapter 6: The Normal Distribution
Week 8 (Oct 20,22)	Chapter 7: The Central Limit Theorem
Week 9 (Oct 27,29)	Chapter 8: Confidence Intervals
Week 10 (Nov 3,5)	Chapter 9: Hypothesis Testing with One Sample
Fall Break (Nov 9-13)	
Week 11 (Nov 17,19)	Chapter 10: Hypothesis Testing with Two Samples
Week 12 (Nov 24,26)	Chapter 11: The Chi-Square Distribution
Week 13 (Dec 1,3)	Chapter 12: Linear Regression and Correlation
Week 14 (Dec 8)	Revision

STUDENT RESPONSIBILITIES:

Students are responsible for all lecture material, labs and readings. Students are expected to practice the material by doing problems from the textbook. Assignments are not accepted if handed in late. If a midterm is missed due to illness the weight will be put on the next midterm or the final. If the final is missed due to illness it will be deferred (see calendar for information). A doctor's note and a phone message or email will be required in both cases.

STATEMENT ON PLAGIARISM AND CHEATING:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

****Note:** all Academic and Administrative policies are available on the same page.