



KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – Fall 2026

PE1090 (A2/L1): Statistics, Measurement, & Evaluation – 3 (3-0-1) 60 Hrs for 15 Wks

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: Lorelle Warr
OFFICE: K218
OFFICE HOURS: By appointment

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CALENDAR DESCRIPTION: This course will introduce students to the concepts of validity and reliability as they apply to quantitative research, measurement and evaluation in physical education, sport, exercise science, and leisure contexts. The course will focus primarily on inferential statistical procedures that are used to organize, summarize, and interpret information.

PREREQUISITE(S): None

COREQUISITE(S): None

REQUIRED MATERIALS:

Goss-Sampson, M. A. (2025). Statistical analysis in JASP: A guide for students (7th ed., v. 0.19.3). <https://jasp-stats.org/wp-content/uploads/2025/07/Statistical-Analysis-in-JASP-A-guide-for-students-2025.pdf>.

OpenStax. (2023). *Introductory statistics* (2nd ed). <https://openstax.org/details/books/introductory-statistics-2e?Book%20details>.



RECOMMENDED MATERIALS: Field, A., Van Doorn, J., & Wagenmakers, E.J. (2025).
Discovering statistics using JASP. Sage.

DELIVERY MODE(S): This is an in-person course. This course will be delivered via lectures, class discussions, group work, in-class activities, and individual student work that includes various delivery methods.

LEARNING OUTCOMES:

1. Students will demonstrate statistical thinking by running basic descriptive and inferential statistical tests.
2. Students will demonstrate conceptual understanding of statistical tests through interpretation and application of results.
3. Students will utilize technology to explore and analyze datasets.
4. Students will define the concepts of reliability and validity as related to statistical testing.

TRANSFERABILITY:

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

**** For courses with alpha (letter) grading, a 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:

Labs	See myClass for due dates	5%
Midterm	Oct 15 th in class	20%
Lab Midterm	Oct 19 th in Lab (50mins)	15%
Project	Dec 8 th – end of class	15%
Lab Final	Dec 7 th in Lab (50mins)	20%
Final Exam	TBD	25%
Total		100%

GRADING CRITERIA:

Please note that most institutions 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:

Lecture (E306): Tuesdays & Thursdays 8:30am-9:50am

Labs (E306): Mondays 11:30am-12:20pm

Date	Monday (Lab)	Tuesdays (Lecture)	Thursdays (Lecture)
Sept 2-4			Course Introduction
Sept 7-11	Labour Day – No Class	Descriptive Statistics	Descriptive Statistics
**Monday Sept 14th – Add/Drop Deadline			
Sept 14-18	Lab 0: JASP	Probability	Probability
Sept 21-25	Lab 1: Cleaning Data	Normal Distribution	Normal Distribution
Sept 28-Oct 2	Lab 1: Cleaning Data	Hypothesis Testing	Hypothesis Testing
Oct 5-9	Lab 2: Descriptives	One Sample t-tests	One Sample t-tests
Oct 12-16	Thanksgiving – No Lab	Lab 3: One Sample t-tests	Midterm
Oct 19-23	Lab Midterm	Independent t-tests	Independent t-tests
Oct 26-30	Lab 4: Independent t-tests	Dependent t-tests	Dependent t-tests
Nov 2-6	Lab 5: Dependent t-tests	Between Groups ANOVA	Between Groups ANOVA
Nov 9-13	Fall Break – No Classes		
Nov 16-20	Lab 6: Between Groups ANOVA	Repeated Measures ANOVA	Correlation
Nov 23-27	Lab 7: Repeated Measures ANOVA	Regression	Chi Square
**Friday Nov 27th – Last Day to Withdraw			
Nov 30-Dec 4	Lab 8: Correlation & Regression	Lab 9: Chi Square	Project Work
Dec 7-9	Lab Final	Project Work & Review	

This schedule is subject to change based on how we progress as a class. Changes will be announced in class and on myClass.

STUDENT RESPONSIBILITIES:

Attendance: Regular attendance is a key to success in this and every other course. Please contact the instructor if you must miss class. It is the student's responsibility to acquire any materials and content missed due to absence.

Labs: Labs are designed as an active work time for the lab assignments with the instructor present to answer questions. These assignments are designed to prepare you for the lab midterm and lab final exams.

Late Assignments: Late assignments will be deducted 10% for each day late, including weekends. Project guidelines will be discussed in class.

Unforeseen Circumstances: If you have a significant issue or concern (e.g., illness or family emergency), contact the instructor as soon as possible.

Cell Phones: The personal use of cell phones during class time is unprofessional and distracting to the instructor and fellow students. Texting and talking on a cell phone during class is therefore strictly prohibited.

STATEMENT ON ACADEMIC MISCONDUCT:

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 <https://www.nwpolytech.ca/about/polytechnic-leadership/policies-directory>.

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