KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – Fall 2024

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	**PHONE:**	780-539-2978
OFFICE:	K219	**E-MAIL:**	lwarr@nwpolytech.ca
OFFICE HOURS:	By appointment		

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)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Goss-Sampson, M. A. (2022). Statistical analysis in JASP: A guide for students (v. 0.16). https://jasp-stats.org/wp-content/uploads/2022/04/Statistical-Analysis-in-JASP-A-Students-Guide-v16.pdf

OpenStax. (2013). *Introductory statistics.* www.openstax.org/details/introductory-statistics

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 to ensure the transferability of this course at the Alberta Transfer Guide main page http://www.transferalberta.alberta.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:

Midterm	October 10th in class	20%
Project	Part 1: November 21st Part 2: December 10th	15%
Labs	See schedule below	5%
Lab Midterm	In Lab (50mins)	15%
Lab Final	In Lab (50mins)	20%
Final Exam	TBD (2 hours)	25%
	Total	100%

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:

Date	Tuesday (Lecture)	Thursday (Lecture)	Friday (Lab)
Sept 3-6	Course Introduction	Descriptive Statistics	Lab 1: JASP
Sept 9-13	Descriptive Statistics	Probability	Lab 2: Cleaning Data
****Sept 12th – Add/Drop Deadline**			
Sept 16-20	Probability	Normal Distribution	Lab 3: Descriptives
Sept 23-27	Normal Distribution	Intro to Hypothesis Testing	Lab 4: Variability & z-scores
Sept 30-Oct 4	Intro to Hypothesis Testing	Hypothesis Testing	Lab 5: Independent t-tests
Oct 7-11	Review	**Midterm**	Review
Oct 14-18	Hypothesis Testing	Hypothesis Testing	**Lab Midterm**
Oct 21-25	ANOVA	ANOVA	Lab 6: Dependent t-tests
Oct 28-Nov 1	ANOVA	Correlation & Regression	Lab 7: Between Groups ANOVA
Nov 4-8	Correlation & Regression	Correlation & Regression	Lab 8: Repeated Measures ANOVA
Nov 11-15	No Classes: Fall Break		
Nov 18-22	Project Planning	Project Planning (**Part 1 due, 11:59pm)	Lab 9: Correlation & Regression
Nov 25-29	Data Collection (L106)	Project Work & Review	Review
****Nov 27th – Last Day to Withdraw**			
Dec 2-6	Project Work & Review	Applying Statistics	**Lab Final**
Dec 9-10	Project Work & Review (**Part 2 due, 11:59pm)		

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

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Lab Due Dates

All labs are due @ 11:59pm MST on their due date.

Lab	Due Date
1	Thursday September 12th
2	Thursday September 19th,
3	Thursday September 27th
4	Thursday October 4th
5	Thursday October 24th
6	Thursday October 31st
7	Thursday November 7th
8	Thursday November 21st
9	Thursday November 28th

STUDENT RESPONSIBILITIES:

- 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. If a student misses more than 5 classes, they may not be allowed to take the midterm and/or the final exam, refer to the Final Examination Policy.
- 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 projects will be deducted 10% for each day late, including weekends. Project guidelines will be discussed in class and posted on myClass.
- If you have a significant issue or concern (e.g., illness or family emergency), contact the instructor as soon as possible.

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 at https://www.nwpolytech.ca/about/administration/policies/index.html.

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