DEPARTMENT OF NURSING EDUCATION & HEALTH STUDIES

COURSE OUTLINE – Fall 2023

NS2115 (A2): Statistics and Knowledge Management– 3 (3-0-0) 45 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) 539-3278
OFFICE:	J209	**E-MAIL:**	TKadri@NWPolytech.ca
OFFICE HOURS:	T-R 10:00 AM -11:00 AM & 1:00 PM -2:00 PM		

CALENDAR DESCRIPTION:

An introduction to reading, understanding and interpreting commonly used statistics in published health sciences research. The course provides a hands-on approach to understanding measurement, sampling, and statistical analysis techniques commonly used in health care research. It introduces the concepts of information literacy, health data and big data in electronic datasets and the statistical techniques used to interpret these data in meaningful ways. Note: Available only to Nursing Students in the Collaborative program

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:	**A2**	**F**	**8:30 – 11:20**	**Room HEC201**

NORTHWESTERN POLYTECHNIC

LEARNING OUTCOMES:

- Identify and explain levels of measurement and descriptive statistics (measures of central tendency, measures of dispersion).
- Interpret results of parametric and non-parametric tests.
- Interpret statistical results presented in graphs and tables, including meta-analysis.
- Apply sampling and probability theories to the interpretation of health/related research.
- Understand and interpret the significance and magnitude of measures of association.

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.ca.

** Please note that most universities will not accept your course for transfer credit IF your grade is less than C-. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Assignments:	10%
Quizzes:	10%
Midterms:	2 × 20% (Weeks 5 and 10)
Final:	40% (Cumulative and scheduled during exam period, Dec 14-21 inclusive)

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

Note: There will be no make-up quizzes or exams. If a quiz/test is missed for a valid reason and proper documentation is provided, then the weight of the quiz/test will be transferred to another component. Late assignments will not be accepted.
It is the student's responsibility to be available to write the final exam at the scheduled time. Writing early is not permitted.

GRADING CRITERIA:

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

NORTHWESTERN POLYTECHNIC

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 (Sept 8)	**Chapter 1: Sampling and Data**
Week 2 (Sept 15)	**Chapter 2: Descriptive Statistics**
Week 3 (Sept 22)	**Chapter 4: Discrete Random Variables**
Week 4 (Sept 29)	**Chapter 6: The Normal Distribution**
Week 5 (Oct 6)	**Chapter 6: The Normal Distribution**
Week 6 (Oct 13)	**Chapter 7: The Central Limit Theorem**
Week 7 (Oct 20)	**Chapter 8: Confidence Intervals**
Week 8 (Oct 27)	**Chapter 8: Confidence Intervals**
Week 9 (Nov 3)	**Chapter 9: Hypothesis Testing with One Sample**
Week 10 (Nov 10)	**Chapter 10: Hypothesis Testing with Two Samples**
Fall Break (Nov 17)	
Week 12 (Nov 24)	**Chapter 11: The Chi-Square Distribution**

Week 13 (Dec 1)	**Chapter 12: Linear Regression and Correlation**
Week 14 (Dec 8)	**Chapter 13: F Distribution and One-Way ANOVA**

STUDENT RESPONSIBILITIES:

Attend all lectures. If a lecture is missed, it is the student's responsibility to catch up on the material and obtain the missing lecture notes.

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.