DEPARTMENT SCIENCE

COURSE OUTLINE – Fall 2025

ST2520 (A2): Introduction to Applied Statistics II – 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:	T&R 10:00 AM -12:00 PM		

CALENDAR DESCRIPTION:

Methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Science and Business.

PREREQUISITE(S)/COREQUISITE: Prerequisites: ST1510 or equivalent

REQUIRED TEXT/RESOURCE MATERIALS:

Online Notes: The notes and practice materials on the D2L course website cover all the necessary material and include important examples to demonstrate application of the material.

Optional Text:

- The Statistical Sleuth: A Course in Methods of Data Analysis (3rd Ed) by Ramsey/Schafer
- Introduction to the Practice of Statistics (10th Ed) by Moore, McCabe and Craig.

DELIVERY MODE(S):

Lecture:	**A2**	**T R**	**8:30 – 9:50**	**H211**
Lab:	**AL1**	**R**	**14:30 – 16:20**	**A313**

LEARNING OUTCOMES:
The student should be able to learn the methods in applied statistics including regression techniques, analysis of variance and covariance, and methods of data analysis. Applications are taken from Biological, Physical and Social Sciences, and Business. A recent version of SPSS software will be used in lectures and/or labs. The lab component uses real data and scenarios extracted from news articles, and journals to reinforce the statistical concepts discussed in lectures.

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.

** 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: Wed Oct 2, Week 10: Wed Nov 4)
Lab Exam 10% (AL1 Thu Dec 4)
Final Exam 30% (Cumulative, during exam period Dec 13 - Dec 20)

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:

Weeks	Topic
Week 1 (Sep 4)	Review, Intro + Design Concepts
Week 2 (Sep 9,11)	Review, Intro + Design Concepts

Week 3 (Sep 16,18)	One or Two Population Means
Week 4 (Sep 23, 25)	One or Two Population Means
Week 5 (Oct 2)	One or Two Population Means
Week 6 (Oct 7,9)	Several Population Means
Week 7 (Oct 14,16)	Several Population Means
Week 8 (Oct 21, 23)	Two-Factor ANOVA
Week 9 (Oct 28, 30)	Two-Factor ANOVA
Week 10 (Nov 4,6)	Simple Linear Regression
(Nov 11,13) Winter Break	
Week 11 (Nov 18,20)	Simple Linear Regression
Week 12 (Nov 25,27)	Multiple Linear Regression
Week 13 (Dec 2,4)	Multiple Linear Regression
Week 14 (Dec 9)	Non-Parametric tests

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 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.