

**DEPARTMENT OF PHYSICAL EDUCATION AND KINESIOLOGY  
COURSE OUTLINE – FALL 2020**

**PE1090 (A2): Statistics, Measurement and Evaluation – 3 (3-0-1) 60 Hours 15 Weeks**

**INSTRUCTOR:** Julia Dutove, Ph.D.      **PHONE:** 780-539-2974  
**OFFICE:** K215      **E-MAIL:** [JDutove@gprc.ab.ca](mailto:JDutove@gprc.ab.ca)  
**OFFICE HOURS:** By appointment

**FALL 2020 DELIVERY:** Remote Delivery. This course is delivered remotely. There are no face-to-face or onsite requirements. Students must have a computer with a webcam and reliable internet connection. Technological support is available through [helpdesk@gprc.ab.ca](mailto:helpdesk@gprc.ab.ca)

**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:**

Introductory Statistics from OpenStax, Print ISBN 1938168208, Digital ISBN 1947172050,  
[www.openstax.org/details/introductory-statistics](http://www.openstax.org/details/introductory-statistics) (Available free online)  
Pallant, J. (2016). *SPSS survival manual* (6<sup>th</sup> ed.). Berkshire, England: McGraw-Hill.

**DELIVERY MODE(S):** This course will be taught using a variety of methods of delivery such as lecture, experiential learning opportunities, small group discussion, and use of statistical software for calculation and analysis (i.e., SPSS).

**COURSE OBJECTIVES:**

1. The student will be introduced to, and be able, to recognize the important structure of basic statistical concepts.
2. The student will demonstrate the use of selected statistical techniques: standard z-scores, t-statistics, and correlation coefficients.
3. The student will be able to make concrete observations and decisions regarding empirically supported data for current research and testing measures in the field of sport, exercise, and physical education.
4. The student will learn to enter and interpret data results using appropriate statistical technology (i.e., SPSS) with links to statistical theory.

**LEARNING OUTCOMES:**

1. The instructor will explore concepts in tests and measures and the use of technology for statistical calculations.
2. The instructor will utilize datasets (small and large) in order to support statistical principles being examined and applied in class.
3. The instructor will introduce descriptive statistics and normal distribution.
4. The instructor will examine, in depth, the calculation, application, and interpretation of selected statistical techniques.
5. The instructor will introduce and explore hypothesis testing.
6. The instructor will introduce concepts and key terms for reliability and validity for students.

**TRANSFERABILITY:**

This course is considered a University Transferable course. Please consult the Alberta Transfer Guide for more information at <http://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**

**GRADING CRITERIA:**

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**. This means **DO NOT GET LESS THAN “C-” IF YOU ARE PLANNING TO TRANSFER TO A UNIVERSITY.**

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		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

**STATEMENT ON PLAGIARISM AND CHEATING:**

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at [www.gprc.ab.ca/about/administration/policies/](http://www.gprc.ab.ca/about/administration/policies/)

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

**EVALUATIONS:**

Midterm	Oct 7	20%
Data Project	Nov 30 & Dec 9	20%
Labs	See Lab Schedule	6 labs x 5% = 30%
Final Exam	TBD	30%
<b>Total</b>		<b>100%</b>

**STUDENT RESPONSIBILITIES:**

- Regular attendance is a key to success in this and every other course. Please contact the instructor if you have to 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.
- Lab attendance is mandatory. Failure to attend lab will result in a 0 for the missed lab unless the instructor has given prior permission. Labs must be submitted online by the posted due date & time and will be deducted 10% for each day late, including weekends. Students will be allowed one lab re-submission for a lab of their choice. This must be submitted online by the start of the final exam.
- Late projects will be deducted 10% for each day late, including weekends.
- If you have a significant issue or concern (e.g., illness or family emergency), contact the instructor as soon as possible.

## COURSE SCHEDULE/TENTATIVE TIMELINE:

**Lecture:** Monday & Wednesday: 8:30-9:50am (Online)

Week	Date	Topics
1	Sept 2	Course Introduction
2	Sept 7 & 9	<b>*Sept 7: Labour Day, No Classes</b> Descriptive Statistics
3	Sept 14 & 16	Descriptive Statistics & Probability
4	Sept 21 & 23	Normal Distribution
5	Sept 28 & 30	Normal Distribution
6	Oct 5 & 7	Review <b>Midterm: Oct 7</b>
7	Oct 12 & 14	<b>*Fall Break, No Classes</b>
8	Oct 19 & 21	Hypothesis Testing
9	Oct 26 & 28	Hypothesis Testing
10	Nov 2 & 4	Correlation
11	Nov 9 & 11	Correlation <b>*Nov 11: Remembrance Day, No Classes</b>
12	Nov 16 & 18	ANOVA
13	Nov 23 & 25	ANOVA
14	Nov 30 & Dec 2	<b>Data Project Draft Due: Nov 30, 12pm</b> Applying Statistics
15	Dec 7 & 9	Review <b>Data Project Due: Dec 9, 12pm</b>

*This schedule is subject to change based on how we progress as a class. Changes will be announced in class and on D2L.*

**Lab:** Thursday: 2:30-3:20pm (Online)

Date	Topics	Due Dates
Sept 3	No Lab	
Sept 10 & 17	Lab 1	Sept 20, 11:59pm
Sept 24 & Oct 1	Lab 2	Oct 4, 11:59pm
Oct 8	Midterm, No Lab	
Oct 15	<b>*Fall Break, No Lab</b>	
Oct 22 & 29	Lab 3	Nov 1, 11:59pm
Nov 5	Lab 4	Nov 8, 11:59pm
Nov 12 & 19	Lab 5	Nov 22, 11:59pm
Nov 26 & Dec 3	Lab 6	Dec 6, 11:59pm

*This schedule is subject to change based on how we progress as a class. Changes will be announced in class and on D2L.*