

SAMPLE COURSE OUTLINE

Course Code, Number, and Title:

KINS 2206: Introduction to Statistics in Kinesiology

Course Format:

[Course format may vary by instructor. The typical course format would be:]

Lecture 2 h + Seminar 0 h + Lab 2 h

Credits: 3

Transfer credit: For information, visit bctransferguide.ca

Course Description, Prerequisites, Corequisites:

Research in kinesiology is often quantitative in nature and employs scientific methods. An understanding of statistical analyses and how to interpret them are essential to reading and critically evaluating kinesiology research. In this course, students learn about the stages of the research process, sources of data, descriptive statistics, applications of the normal curve and Z-scores, basic probability, standard error, statistical inference (confidence intervals and hypothesis testing), t-tests, one-way analysis of variance (ANOVA), correlation, regression, and selected non-parametric analysis.

Prerequisites: A minimum "C" grade in one of: Foundations of Mathematics 11, Precalculus 11, Foundations of Mathematics 12, or Precalculus 12; or a minimum "C-" grade in MATH 1150; or MDT 053.

Corequisites: None

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Apply the basic concepts and terminology of statistics to real-life situations;
- Summarize data using appropriate graphs and summary statistics;
- Apply common sampling methods and experimental designs;
- Identify and apply the procedures (including checking assumptions) of different kinds of statistical inference (t-tests, one-way analysis of variance, correlation and regressions);
- Apply statistical methodology to real-life examples using everyday language;
- Use statistical software to perform data analysis and to interpret the output.

Instructor(s): TBA

Office: TBA **Phone:** 604 323 XXXX **Email:** TBA

Office Hours: TBA

snəwəyət̓ leləm̓ Langara College acknowledges that we are located on the unceded territory of the Musqueam people.

Textbook and Course Materials:

[Textbook selection may vary by instructor. An example of texts and course materials for this course might be:]

Vincent and Weir. "Statistics in Kinesiology". Champaign. USA. 2012.

Note: This course may use an electronic (online) instructional resource that is located outside of Canada for mandatory graded class work. You may be required to enter personal information, such as your name and email address, to log in to this resource. This means that your personal information could be stored on servers located outside of Canada and may be accessed by U.S. authorities, subject to federal laws. Where possible, you may log in with an email pseudonym as long as you provide the pseudonym to me so I can identify you when reviewing your class work.

Assessments and Weighting:

Final Exam 30%

Other Assessments %

(An example of other assessments might be:) %

Midterm Exam: 40%

Assignments: 10%

Lab work: 20%

Grading System: Letter grade

Specific grading schemes will be detailed in each course section outline.

Passing grade: C

Topics Covered:

[Topics covered may vary by instructor. An example of topics covered might be:]

Introduction to Statistics, Research and Measurement

Basic Descriptive Statistics (Measurement of Central Tendency, Measurement of Variability)

Normal Probability Distributions

Observational Studies and Experiments (Sampling Methods, Sampling Errors, Design of Experiments)

Basic Probability and Sampling Distributions

Statistical Inference of One Population (Confidence Intervals, Hypothesis Testing)

Statistical Inference for Two Populations (Independent Samples and Correlated Samples)

Statistical Inference for Three or more Populations (One-way ANOVA)

Correlation and Regressions

This generic outline is for planning purposes only.

As a student at Langara, you are responsible for familiarizing yourself and complying with the following policies:

College Policies:

[E1003 - Student Code of Conduct](#)

[F1004 - Code of Academic Conduct](#)

[E2008 - Academic Standing - Academic Probation and Academic Suspension](#)

[E2006 - Appeal of Final Grade](#)

[F1002 - Concerns about Instruction](#)

[E2011 - Withdrawal from Courses](#)

Departmental/Course Policies:

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