

Course Outline

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Course Title: Statistics for the Life Sciences

Course Code: STAT 201

Summer 2011

Credits: 3

Section: C100

Course Description:

This is an introductory course in research methodology and associated statistical analysis techniques for students with training in the life sciences. Aimed at a non mathematical audience, this course discusses procedures that are most commonly used in the summary of statistical surveys and in the interpretation of experimental data.

1. **Data summaries and displays:** Graphical displays, measures of central tendency, measures of dispersion, percentiles, the normal curve, computer generated graphs and data summaries.
2. **Summarizing the relationship between variables:** Scatter plots, the regression line, correlation, and causation.
3. **Basic probability calculations:** The addition and multiplication rules, and independence.
4. **Distributions for count data:** The binomial and Poisson distributions; where they arise, and their basic properties.
5. **Hypothesis tests and confidence intervals:** p-values, confidence levels, and their interpretation; inferences on a proportion and a mean based on the standard normal and t-distributions, underlying assumptions, and a mention of alternatives.
6. **Comparing two treatments:** Completely randomized and paired de

Course Requirements:

Assignment/Exam	Percentage
Assignment 1	5%
Assignment 2	5%
Assignment 3	5%
Assignment 4	5%
Mid-term Exam	30%
Final Exam	50%

Requirements Notes:

Please Note: Students requiring accommodation as a result of a disability must contact the Centre for Students with Disabilities at 778-782-3112 or csd_office@sfu.ca.

Fees:

- [Course materials & service fee](#) \$40.00 CAD

Delivery Method:

- [WebCT](#)

Please Note: This course outline was accurate at the time of publication but is subject to change. Please check your course requirements carefully when your class starts.

This page was last updated on 18 February 2011.