UNIVERSITY OF CALGARY

FACULTY OF SCIENCE

Mathematics and Statistics - MS 476
Ph: (403) 220-5203

COURSE INFORMATION SHEET

Winter 2010

1. **Course**: STAT 217
   Lecture/Time: Lecture 02 11:00 to 11:50 MoWeFr
   Instructor: Dr. G. Chen
   Office/Phone/Email: MS524 403 220 3961 gchen@math.ucalgary.ca

2. **Prerequisites**: **Stat213 (C- and above) or consent of the division**
   NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined in the current University Calendar (see www.ucalgary.ca/pubs/calendar) *Faculty of Science, section 5C*. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **Academic Accommodations**: It is the student's responsibility to request academic accommodations. A student with a documented disability who may require academic accommodation must register with the Disability Resource Centre to be eligible for formal academic accommodation. DRC registered students are required to discuss their needs with the instructor no later than fourteen (14) days after the start of this course.

5. **The University policy on grading and related matters** is described in the current University Calendar, *Academic Standings*. In determining the overall grade in the course, the following weights will be used:

Quizzes	[5 quizzes, count the best 4]	35 %
Midterm Test	[1]	20 %
Final Exam		45 %

   A passing grade on the final examination is essential to passing the course as a whole. There will be a final examination scheduled by the Registrar's Office. **The use of aids such as *open book*, *laptop computer*, etc. Are not** permitted.

6. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined in the current University Calendar, *Faculty of Science, section 6A*. It is the student's responsibility to be familiar with these regulations.

7. **Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the current University Calendar. See: http://www.ucalgary.ca/honesty/

8. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):**

   *****THERE WILL BE NO OUT-OF-CLASS-TIME ACTIVITY.*****

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME ACTIVITY. If you have a conflict with this out of class time activity, please inform your instructor at least one week in advance of the activity so that other arrangements may be made for you.

_____ Date: _____
Department approval

9. The **required textbook** for this course is:

   Statistics, 11th Edition (with MINITAB)
   By
   McClave and Sincich
   Pearson, 2009.

10. There are

    five quizzes of 30 minutes each to be written in lab times,
    a 50-minute midterm test to be written on **Friday, March 5 during the lecture time**,
    a two-hour final examination to be scheduled by the Registrar's Office.

    The quizzes, the midterm test and the final examination are ***all closed-book*****.**

11. ***A calculator*** is the only aid you can bring to write the quizzes (unless otherwise stated). ***A calculator*** **and** ***a two-sided 8.5" by 11'' sheet of formula information*** are the only aids you can bring to write the **midterm test and the final examination**. Lab computers and necessary statistical tables will be provided if needed.

12. **You are responsible for the materials presented in class according to the curriculum that may not be covered by the textbook.**

13. Beside lectures and labs, a **continuous tutorial** has been scheduled on each weekday in room **MS 571** to give you more help. The times are: **We 12:00-14:00, Th 11:00-14:00, Fr 12:00-14:00**.

14. Students have to use **UCIT account** to be able to use computers in MS515, MS521 and MS571. Such accounts can be applied from the university web at www.ucalgary.ca/it, 2nd floor of the library or the 7th floor of MS building.

15. **Important dates for Winter 2010:** *(For quizzes the time given below is the* ***first day*** *of the week in which you have a lab. Find out the day on which you have a lab in the week.)*

January 11	Monday	Lectures Begin
January 18	Monday	Labs Begin
January 25		**Quiz #1**
February 8		**Quiz #2**
February 14 - 21		**Reading Week, No Lectures**
March 5	**Friday**	**Midterm Test**, Room SA 104
March 15		**Quiz #3**
March 29		**Quiz #4**
April 2	**Friday**	**Good Friday, No Lecture**
April 12		**Quiz #5**
April 16	Friday	Last Day of Lectures
April 19 - 29		Final Exam Period

16. Make sure that you go to the right lab to write your quizzes. There is absolutely no switching between labs, and the TA's are not responsible for any missing/wrong marks due to your switch.

17. Good luck!

UNIVERSITY OF CALGARY

FACULTY OF SCIENCE
Department of Mathematics and Statistics

STATISTICS 217
"STATISTICAL METHODS II"

Calendar Description: H(3-1-1T)
Estimation of population parameters; confidence intervals for means; choice of sample size. Tests of hypotheses including 2-sample tests and paired comparisons. The Chi-squared tests for association and goodness-of-fit. Regression and correlation; variance estimates; tests for regression and correlation coefficients. Non-parametric methods and associated tests. Time series, forecasting.
Prerequisite: Statistics 213 or consent of the Division.

Syllabus

Topics	**Number of hours**
ESTIMATION Chapter 7 Point and interval estimation. Unbiased estimators. Confidence intervals for means, proportions, and their differences. Required sample size for given interval width. Optional: Notched Box-and-whisker plots.	4
HYPOTHESIS TESTING: ONE SAMPLE Chapter 8 Introduction to hypothesis testing. Acceptance and rejection regions. Type I and Type II errors and their probabilities. Hypotheses about means and proportions including Student T-test. Power function of a test involving the mean and proportion. Hypothesis testing and confidence interval for the variance, Chi-squared distribution.	8
HYPOTHESIS TESTING: TWO SAMPLES Chapter 9 Distribution of the difference of two sample means and proportions. Comparisons of two means and two proportions including paired Student T-test. Optional: Levene's test or Fisher's distribution and comparison of two variances.	5
CHI-SQUARED TESTS Chapter 13 Goodness of fit tests to uniform, binomial, Poisson and Normal distributions. Tests of homogeneity, independence and contingency tables.	4
ANALYSIS OF VARIANCE One way analysis of variance including F-test. Two way analysis of variance with one observation per cell.	3
LINEAR REGRESSION Chapter 11 ~ 12 Linear regression model, scattergrams, Least Squares Method. Estimation of the intercept and slope, confidence intervals and tests. Regression ANOVA and the F-test. Coefficients of correlation and determination. Predictions and their confidence intervals. Multivariate and polynomial regression.	7
NON-PARAMETRIC TESTS Chapter 14 Selection of non-parametric tests from the following list: Sign test, Mann-Whitney test, Wilcoxon signed-ranks test, Kruskal-Wallis test, Kolmogorov-Smirnov test.	5
TOTAL HOURS	36

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PE:jml
Calendar change H(3-2) to H(3-1-1T) Fall 2009