**Instructor:**              Jason Edgerton
**Telephone:**          474-8192
**E-mail:**                j_edgerton@umanitoba.ca  (include "2290" in the subject header)
**Office:**               323 Isbister Building
**Office Hours**:        By appointment
**Classroom:**         215 Tier
**Timeslot:**           Tuesday/Thursday 10:00-11:15

**Required Textbook**:
None

**Supplemental Text:**
Roberts, L., Kampen, K. & Peter, T. (2009). The Statistics Coach: Learning Through Practice.
Oxford University Press.

**Please note:** The *i>clicker* response unit is available at the Bookstore. Students must register with the system (either on-line or in class) in order to be awarded the participation grade. This system will be used consistently throughout the term to assist in evaluating your progress in solving various methods problems and as a tool for the professor to get live feedback from students during the lectures. The participation mark is worth 5.5% of your total grade for the course based on a combination of participation and the number of correct answers provided by the student during the term. This formula will be clearly explained on the first day of class.

COURSE OVERVIEW

The second half of the course (Winter term) will focus largely on basic statistical methods and techniques for data analysis, with the basic goal of increasing students' statistical literacy.

While this course does not require a strong mathematics background, students will need to use a calculator to work through some basic problems and statistical techniques. As most students will be new to the statistical techniques relevant to this course, regular lecture and lab attendance is essential. Course material is presented in a logical sequence with new topics and concepts building upon previous ones; therefore, missing lectures and labs is likely to create cumulative difficulties with mastery of this material, especially in the later stages of the course.

**Course Reading Requirements:**

Unit Test 1: Relevant lecture notes and stats supplements 1 & 2
Unit Test 2: Relevant lecture notes and stats supplements 3 & 4

*Note*: Although there are 4 supplementary readings posted on D2L, most of the material is covered in lectures, opportunities are provided in class to work through problems and calculations. Consequently, class attendance is crucial. Practice questions and answer keys will also be posted on D2L.

## COURSE EVALUATION

**Participation:** This 5.5% portion of your grade is calculated based on class attendance and the answers you provide using the i>licker response unit throughout both semesters. The i>clicker questions are asked based on the topic of the lecture, more details are provided in class

**Tests:** There will be 2 unit tests. Please note that the tests will cover the reading, lecture, and application materials. Test questions will be drawn from assigned readings and class lectures, and each test will occupy two class periods and will include both multiple choice and written responses. The tentative test dates and contribution toward your final grade are as follows:

|        | *Dates*             | *Weight* |
|--------|---------------------|----------|
| Test 3 | February 12 & 14    | 16%      |
| Test 4 | April 4 & 9         | 16%      |

*Note:* During tests, only a basic, non-programmable calculator is permitted; no other electronic devices are allowed.

*Missed Unit Tests:* Any student who misses a test or exam is required to provide written documentation of a legitimate reason, such as serious illness or bereavement. *This requirement will be strictly enforced.* No student will be allowed to write a make-up test without appropriate written documentation. Any student who does not inform me (by phone/voice mail) of their unavoidable absence *prior* to test time *will not* be allowed to write a make-up test. This rule will also be strictly enforced. There will only be one make-up test scheduled per unit test (date and time TBA). Note: make-up tests will differ from the tests administered in class.

**Grade Key:**

| Total Percentage | Letter Grade |
|------------------|--------------|
| 90+              | A+           |
| 80-89            | A            |
| 75-79            | B+           |
| 70-74            | B            |
| 65-69            | C+           |
| 60-64            | C            |
| 50-59            | D            |
| 0-49             | F            |

*Note: University of Manitoba Senate Policy #1307 requires "a post-examination review of final grades in multi-sectioned courses that will ensure an equitable correspondence between grades and level of performance in all sections". Accordingly, the final grade distribution in this course may be raised or lowered to achieve this equity and, therefore, your final grade may be changed.*

Grades will be posted exclusively on the course's D2L companion site.

## OTHER IMPORTANT DATES AND INFORMATION

**Class will not be held on the following dates:**
February 18-22 – Mid term break

**Voluntary Withdrawal Deadline Date:**
March 20, 2012

**Academic Integrity:**
Students should acquaint themselves with the University's policy on 'Personation at Examinations' (Section 5.2.9) and 'Plagiarism and Cheating' (Section 8.1) found online under UManitoba Catalog 2011-2012>General Academic Regulations>Section 8. Academic Integrity.

**Conduct in Class:**
Excessive talking, late arrivals, or early departures are impolite and distracting for both the instructor and classmates. Please be considerate and respectful of the needs and rights of others in the class. Students are required to silence all electronic devices (i.e. cell phones, pagers, PDAs, etc.). Persistent disruption will result in disbarment from the course. Any student who has a legitimate reason for leaving the class early should inform the instructor at the beginning of class.

**Accommodations:**
*Special Needs:* Special needs services are provided through Disability Services (474-6213). Students with special needs (who require aids, other supports, or require extra time to write a test) should introduce themselves to the instructor at the beginning of the term in order to arrange suitable testing times.

*Holy Days:* The university recognizes the right of all students to observe recognized holidays of their faith, which fall within the academic year. With instructor discretion, necessary arrangements can be made to ensure studies are not jeopardized. The instructor should be notified of a student's intended absence in advance. At least three weeks notice of absence should normally be given where special arrangements are sought.

The course schedule is a general guideline only. Topics may overlap weeks, and may begin or end before specific dates indicated below. It is students' responsibility to ensure that they have all materials for lectures, which will be available through the course website.

| Week/dates | Event |
|---|---|
| January 8<br>1 - Week of January<br><br>8 &10 | First day of class<br>-Refresher: What are statistics? (Levels of measurement, variables, frequency distributions, graphic representations)<br><br>-Measures of Central Tendency (Mean, median, mode)Mea |
| 2 - Week of January<br><br>15 & 17 | *Univariate Analysis*<br>-Measures of Dispersion (Range, standard deviation) |
| 3 - Week of January<br><br>22 & 24 | -Distribution (normal curve & z-scores) |
| 4 - Week of January<br><br>29 & 31 | *Bivariate Analysis*<br>- Introduction to Bivariate Relationships:<br>    -contingency tables (crosstabs) |
| 5 - Week of February<br><br>5 & 7 | - PRE Measures of Association<br>        -lambda, gamma and Pearson's r |
| **February 12 & 14 ** | **Test #4**<br>**Material covered: Weeks 1 to 5 & Supplementary readings 1 & 2** |
| February 18<br>February 18 - 22 | Louis Riel Day (university closed)<br>Mid-term break |
| 6 - Week of February<br><br>26 & 28 | Linear Regression |
| 7- Week of March<br><br>5 & 7 | The Elaboration Model (multivariate relationships) |
| 8 – Week of March<br><br>12 & 14 | |
| 9 - Week of March<br><br>19 & 21 | Introduction to Inferential Statistics & Sampling (probability) |
| March 20 | Last day for voluntary withdrawal from fall/winter term courses |
| 10 - Week of March<br><br>26 & 28 | Inferential Statistics (confidence intervals, chi-square, t-tests) |
| 11 – April 2 | Inferential stats continued / review |
| **April 4 & 9** | **Test #5**<br>**Material covered:  Weeks 6 to 11 & Supplementary readings 3 & 4** |
| April 10 | Last day of class for winter term |