

## Faculty of Science DEPARTMENT OF MATHEMATICS AND STATISTICS Course Information Sheet

1. Course:	STAT 213	Fall 2003

Lecture/Time/Session: L05 TR 9:30 Room: ST 143

L07 TR 12:30 ST 143

**Instructor**: Joan Stellmach

Office: MS 378 Phone: 220-6326

E-mail/Web-site: joans@math.ucalgary.ca www.math.ucalgary.ca/~joans/

 Office Hours:
 Monday
 Tuesday
 Wednesday
 Thursday
 Friday

 13:00 – 13:45
 11:00 – 12:15
 14:00 – 15:00
 11:00 – 12:15
 11:00 – 11:45

**2. Prerequisites:** Math 30, Pure Math 30, or equivalent

**NOTE:** The Faculty of Science policy on pre- and co-requisite checking is outlined on page 198 of the 2003-2004 Calendar. 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responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.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.** The University policy on grading and related matters is described on pages 41-42 of the 2003-2004 Calendar. In determining the overall grade in the course, the following weights will be used:

Mid-term Test		15%
Quizzes	[Best 4 of 5]	40%
Final Exam	-	45%

It is not mandatory to achieve a passing grade on any particular component in order to pass the course as a whole. However, successful completion of the course will be extremely difficult if the overall contribution of any component is less than half of the marks available for that component.

There will be a final examination scheduled by the Registrar's Office. A calculator and one formula sheet will be the only aids permitted for the midterm and final examination.

- **5. Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined on page 199, of the 2003-2004 Calendar. It is the student's responsibility to familiarize herself/himself with these regulations.
- **6. 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 2003-2004 University Calendar under the heading "Student Misconduct", pages 53-56.
- 7. There will be no out-of-class-time activities.

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.

Department approval:	Date:	

**8.** There is no required text for this course.

Recommended Text: Statistics: A First Course First Canadian Edition

Sanders, Smidt, Adatia, Larson

McGraw-Hill

**9. Support materials:** As shown in the accompanying outline, the syllabus has been divided into five "blocks" for easy reference. There will be brief notes, *tutorials*, "typical quiz questions" and *worksheets* available for each block. The tutorial sheet will introduce required computer skills; the worksheet will provide practice problems (more challenging than "typical quiz questions"). In addition, midterm and final review exercises will be provided. These support materials will be available on the web-site <a href="www.math.ucalgary.ca/~ioans/">www.math.ucalgary.ca/~ioans/</a>.

Solutions to all the worksheets, tutorials, and reviews will be on the web page and, if requested, will be posted in the glass case across from MS 372. The master may be borrowed for photocopying.

**10. When you need help,** take advantage of the various course support services available. Ask early and ask often. Don't expect a miracle the night before an exam!

Lecturers and lab instructors have **office hours** for the sole purpose of answering your questions.

A continuous tutorial is available each weekday in the Statistics lab room MS 571. This tutorial provides a study space, access to computers, and an opportunity for students to receive one-on-one assistance with any aspect of the course from the faculty member or teaching assistant supervising the room. The continuous tutorial schedule is

Monday	Tuesday	Wednesday	Thursday	Friday
11:00 - 14:00	12:00 – 16:00	11:00 – 15:00	12:00 – 15:00	12:00 – 15:00

**SCUM** (The Society for Calgary Undergraduate Mathematics) is located in MS 337A. They sell exam packages, run final reviews, and can often assist with problems. The office is open from 10am to 3pm Monday - Friday, and you are welcome to drop by.

The textbook publishers have also provided a web site, <a href="www.mcgrawhill.ca/college/sanders">www.mcgrawhill.ca/college/sanders</a>, with Student Resource links. One feature of this site is NetTutor, which offers chat and threaded discussions and the opportunity to ask questions of on-line tutors. Access to the page will require key words related to the text

11. Five quizzes will be administered during the regularly scheduled <u>lab</u> times of the "Quiz Weeks" shown on the course schedule below. The **best four** of these marks will constitute the "quiz" component of the final course grade. The material tested on each quiz will come entirely from the block of corresponding number with any necessary clarification given in the lecture immediately preceding the quiz.

Calculators may be used when writing quizzes and it is anticipated that you will use the statistical software provided on the computers in the lab rooms.

The quizzes will be "closed-book" – texts, notes, aid-sheets, and statistical tables will not be allowed. An attempt to use any such aids or to access e-mail or the Internet during the writing of a quiz will constitute academic misconduct (Item 6) and will be dealt with accordingly.

You will be given 45 minutes to write each quiz although the expectation is that you should be able to complete the questions in 30 minutes.

**12. Examinations:** There will be a **one hour mid-term test** written during the <u>lecture period</u> on **October 30**. The Registrar will schedule a **two hour final examination**.

One 8½" x 11" aid-sheet (content of student's choosing) and a calculator will be permitted for the <u>mid-term</u> test and for the <u>final examination</u>. Necessary statistical tables will be provided with the final exam.

**13.** The **labs**, shown on your timetable as B17, B18, etc. are held in the Statistics computer labs MS515 and MS521. Every second week, the lab time will be used for the writing of quizzes. In weeks between quizzes, computer techniques relevant to the current lecture material will be introduced, quizzes will be returned, and individual help will be given as requested.

The statistics labs have printers so this also an opportunity for downloading the course support materials. However, the printers are not stocked with paper so you will be required to provide your own.

Labs will begin the second week of classes.

**Note:** An AIX username and password will be required to log on to the computers in the Statistics labs. You must have completed an account registration with Information Technologies by the end of the first week of classes to be prepared for the first lab. See "IT Account Registration" at <a href="https://www.ucalgary.ca/it/mp/students.html">www.ucalgary.ca/it/mp/students.html</a>

## Course Outline Fall 2003

	Topics	Textbook Sections *	Quiz Week
Block 1	Introduction, Sampling; Organization; presentation of data; Characteristic Measures	Chapters 1& 2 Chapter 3	September 29
Block 2	Regression and Correlation; Basic Probability Rules; Venn diagrams, Tree diagrams; Permutations and Combinations; Bayes Theorem	Sections 12.1, 12.2, 12.4 Chapter 4	October 14 (Mon. labs will write Oct. 20)
Block 3	Discrete random variables/ probability distributions Expectations, Variances Specific distributions — Uniform, binomial, hypergeometric, Poisson	Sections 5.1 – 5.3	November 3
Block 4	Specific continuous probability distributions – uniform, normal, exponential Approximations; Sampling Distribution of the Mean; Proportions	Section 5.4 Chapter 6	November 17
Block 5	Inference about the Mean — confidence interval; hypothesis tests Types of error; Student's t distribution Inference about Proportions	Sections 7.1 – 7.3, 7.6 Sections 8.1, 8.2 Section 7.4, 8.3	December 1

Textbook sections refer to Statistics: A First Course (First Canadian Edition)

You will be responsible for material presented in class that is not in the textbook. Italicized topics will be covered only if time permits.

## **Summary of Important Dates Fall 2003:**

September 8	Classes begin	Week of	September 15	Labs begin
•	_	Week of	September 29	Quiz #1
October 13	No classes	Week of	October 14 - 20	Quiz #2
October 30	Midterm test	Week of	November 3	Quiz #3
November 10 – 11	Reading Days - no classe	es		
		Week of	November 17	Quiz # 4
		Week of	December 1	Quiz # 5
December 8	Last day of classes			
December 12 – 22	Final Examinations			