Instructor: Dr. Farouk Nathoo

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Lecture Times: Tuesday, Wednesday and Friday 12:30-1:20

Office Hours: Tuesday, Wednesday and Friday 11:30-12:20

Pre- or Co-requisite : MATH 101 or MATH 103

**Textbook**: J. Devore, Probability and Statistics for Engineering and the Sciences  $(7^{th} \text{ ed.})$ 

Course Website: The website for this course is located at: http://www.math.uvic.ca/~nathoo/stat260.html

Assignments: The homework handout is available on the course website. The homework handout is your best friend in this course. It contains 32 reading/exercise sets. These sets will be assigned in order throughout the term at the rate of approximately one set per lecture. These are for practice only and should not be submitted for marking (with the exception of Minitab assignments). Answers for these exercises are provided either in the back of the Textbook or on the homework handout. The software package used in this course will be Minitab. There will be two Minitab assignments that are to be submitted for marking.

**Course Supplement**: Supplement for Statistics 260 is available on the course website. The supplement contains:

- Introduction to P-values useful course reading
- Formula list this will be provided for midterm tests and final exams
- Flash card formula review useful for test preparation
- Sample final exams with solutions
- Two Minitab assignments these should be handed in for marking on the announced due dates

**Objectives**: To provide a calculus-based introduction to probability and statistics.

**Topics**: Introduction (Section 1.1), Histograms, Measures of Location (Section 1.3, omit trimmed means), Measures of Variability (Section 1.4, omit boxplots), Probability (Chapter 2, omit Section

2.3), Discrete Random Variables and Probability Distributions (Chapter 3, omit Section 3.5), Continuous Random Variables and Probability Distributions (Sections 4.1, 4.2, 4.3, the Exponential Distribution in Section 4.4), Joint pmf and Independence for two Discrete Random Variables (part of Section 5.1), Covariance and Correlation (discrete parts of Section 5.2), Random Samples and the Central Limit Theorem (Sections 5.3 and 5.4), Distribution of a Linear Combination (Section 5.5), Point Estimation, including Maximum Likelihood Estimation (part of Chapter 6), Confidence Intervals Based on a Single Sample (Chapter 7, omit Section 7.4), Tests of Hypotheses Based on a Single Sample (part of Chapter 8, plus Section 1 of the Supplement), Inferences Based on Two Samples ( Chapter 9, omit Section 9.5).

Calculator: A Sharp EL-510R scientific calculator is required for this course and is the only type of calculator allowed for any course offered by the department. It can be purchased at the UVic bookstore (about \$10.00). The model number on the package may be EL-510RB.

Statistical Software and Computing: Minitab, a statistical software package is used in this course. It is on the PCs in the computer labs on campus. For lab locations and hours go to www.uvic.ca  $\rightarrow$  Computing  $\rightarrow$  Students  $\rightarrow$  Computing Labs. A Netlink account is needed to use the PCs in these labs. To obtain a netlink account go to www.uvic.ca  $\rightarrow$  Computing  $\rightarrow$  NetLink.

Math & Stats Assistance Centre: Drop-in assistance with statistics is provided through the Math & Stats Assistance Centre. Location and operating hours can be found at www.math.uvic.ca  $\rightarrow$  Assistance Centre.

**Examinations and Grading**: Assigned homework exercises (excluding the Minitab Assignments) and the sample examination questions in the Course Supplement are typical of the kinds of questions that will appear on exams. Many of the midterm test questions will be based on assigned homework exercises. All tests will be set in the same format (part multiple-choice, part full-answer) as the sample exams.

Components	Dates	Weights	Coverage
Minitab Assignments	Collection dates TBA	4%	See Sets 2 and 29 of the homework
Midterm 1	February 11, 2011	18%	TBA
Midterm 2	March 11, 2011	18%	TBA
Final Examination	TBA	60%	Sets 1 thru 32 excluding MTBs

Extension requests will be denied except for the following reasons: illness with a doctor's note, a family misfortune. Assignments submitted late will not be accepted and missed exams will receive a grade of zero (unless prior permission is granted). There will be no retests. All mark disputes for midterms and assignments must be resolved within one week of my returning the midterms and assignments. After this one week period, all marks are final.

The Multi-Section Grading Policy will be used to determine course grades. Students in your section will be ranked on the basis of total score obtained from the five components in the above table. Course grades for each section will be awarded in the same proportions as grades earned by your section on the final exam. For details regarding this Multi-Section Grading Policy, please visit www.math.uvic.ca  $\rightarrow$  Course Policy  $\rightarrow$  Multi-Section Grading Policy. The table for converting raw percentage scores into letter grades is:

Letter Grade	D	$\mathbf{C}$	C+	B-	В	B+	A-	А	A+
Lower Bound	50%	55%	60%	65%	70%	75%	80%	85%	90%

Students are **strongly** advised **NOT** to make final plans for travel or employment during the exam period until after the exam schedule is known. Special arrangements will **NOT** be made for examinations that may conflict with such plans.

**Grade Posting**: Course grades will be posted on the course webpage by student number. Any student wishing to be excluded from this posting should notify their instructor in writing.

**Commitment to Inclusivity and Diversity**: The Resource Centre for Students with a Disability (www.resd.uvic.ca) offers support for students with a permanent disability upon enrollment. Students who experience academic requirements in conflict with religious holy days should make prior arrangements with me to alleviate these conflicts. All participants are expected to provide a supportive and safe learning environment for all class members.