January 2004 MATH 116

## **Camosun College**

Department of Mathematics Course Outline

## **Math 116 Elementary Statistics**

This Course is designed for students in social science programs. Topics: descriptive statistics, probability, the normal distribution, estimating population means and proportions, hypothesis testing, linear correlation, regression, goodness-of-fit, and non-parametric tests, applications using SPSS. (T)

Offered: Fall, Winter, Spring

Credit: 4

IN-CLASS WORKLOAD: 4 hours weekly plus 1 hour lab on alternate weeks

OUT-OF-CLASS WORKLOAD: 4-7 hours weekly PREREQUISITES: MATH 060

INSTRUCTOR: Bill Calver (office: E248, tel. 370-3504

e-mail: calver@camosun.bc.ca

| <u>Topic</u>                    | Sections             |
|---------------------------------|----------------------|
| Introduction                    | 1.1 - 1.4            |
| Descriptive Statistics          | 2.1 - 2.7            |
| Probability                     | 3.1 - 3.4, 4.1 - 4.4 |
| Normal Probability Distribution | 5.1 - 5.5            |
| Estimates and Sample Sizes      | 6.1 - 6.4            |
| Hypothesis Testing              | 7.1 - 7.5            |
| Correlation and Regression      | 9.1 - 9.3            |
| Chi-Square Tests                | 10.1 - 10.3          |
| Tests Comparing Two Parameters  | 8.1 - 8.3, 8.6       |

## Evaluation

40% of your final grade will be taken from a 3 hour final examination. This examination will be written between Tuesday April 13 and Wednesday April 21

40% of your final grade will be taken from a series of tests written during the semester.

Test 1: Friday, Jan 23, Test 2: Friday Feb 20, Test 3: Friday March 19

5% of your final grade will be taken from assignments handed in during the semester.

5% of your final grade will be taken from the lab exercises.

10% of your final grade will be taken from a final lab exam.

If your final exam mark is greater than your term mark, only your final exam mark will be used to compute your grade (assuming that assignments and lab exercises are completed satisfactorily – no more than 1 assignment and/or 1 lab exercise is missing).

Note - All tests must be written during the scheduled period and all assignments must be handed in on time.

| Grading: | A+ | 95 to | 100 | B+ | 80 to | 84 | C+ | 65 | to | 69 |
|----------|----|-------|-----|----|-------|----|----|----|----|----|
|          | A  | 90 to | 94  | В  | 75 to | 79 | С  | 60 | to | 64 |
|          | A- | 85 to | 89  | B- | 70 to | 74 | D  | 50 | to | 59 |

Text: Triola, Goodman, Law, Elementary Statistics (Second Canadian edition), Addison-Wesley 2000, Inc.

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|           |                      | Winter 2004 |        |                     |
|-----------|----------------------|-------------|--------|---------------------|
| Jan 5     |                      |             | Mar 1  | 6.3                 |
|           | Introduction         |             |        | 6.4                 |
| 7         |                      |             |        | Assignment 4        |
| 8         | 1.3                  |             | 4      | 6.4                 |
| 9         | 1.4                  |             |        | 7.1/7.2             |
|           |                      |             |        | 7•1,7•2             |
| 12        | 2.1/2.2              |             | 8      | 7.3                 |
|           | Lab 1A               |             | 9      | Lab 4A              |
| 14        |                      |             | _      | Assignment 5        |
|           | 2.4                  |             |        | 7.3                 |
| 16        |                      |             | 12     | 7.4                 |
| 10        | Carcaracor           |             | 12     | 7 • 1               |
| 19        | 2.5                  |             | 15     | 7.5                 |
| 20        |                      |             | 16     |                     |
| 21        |                      |             | 17     |                     |
|           | 2.6                  |             | 18     |                     |
| 23        |                      |             | 19     | Test 3              |
| 23        | Test I               |             | 19     | Test 3              |
| 2.6       | 2 7                  |             | 2.2    | 10.2                |
|           | 2.7<br><b>Lab 2A</b> |             | 22     | 10.3 <b>Lab 5A</b>  |
|           |                      |             |        |                     |
|           | 3.1/3.2              |             | 24     |                     |
| 29        |                      |             | 25     | 9.3                 |
| 30        | 3.3                  |             | 26     |                     |
| TI - 1- 0 | 2 4                  |             | 2.0    | 0 1/0 0             |
| Feb 2     |                      |             | 30     | 8.1/8.2             |
| 3         |                      |             |        | Lab 5b              |
| 4         | Assignment 2         |             | 31     | Assignment 7        |
| 5         |                      |             | Apr 1  | 8.3                 |
| 6         | 4.1/4.2              |             | 2      | 8.6                 |
|           | 27 7 1               |             | -      | - 1                 |
| 9         |                      |             | 5<br>6 | Lab                 |
| 10        |                      |             |        |                     |
| 11        |                      |             | 7      | Assignment 8        |
| 12        |                      |             | 8      | Last day of classes |
| 13        | Break                |             | 9      | Good Friday         |
| 1.0       | F 1/F 0              |             | 1 0    | To a to a Manada    |
|           | 5.1/5.2              |             | 12     | Easter Monday       |
| 17        |                      |             | 13     | Exams start         |
| 18        | Assignment 3         |             | 14     |                     |
| 19        | 5.3                  |             | 15     |                     |
| 20        | Test 2               |             | 16     |                     |
|           |                      |             | 1 0    |                     |
| 23        |                      |             | 19     |                     |
| 24        |                      |             | 20     | _                   |
| 25        |                      |             | 21     | Exams end           |
| 26        | 6.1/6.2              |             | 22     |                     |
| 27        | 6.2                  |             | 23     |                     |