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|  | <p>School of Arts & Science MATHEMATICS DEPARTMENT MATH 216 Applied Statistics Quarter or Semester/Year</p> |
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COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/math.html>

Ω Please note: the College electronically stores this outline for five (5) years only.
It is **strongly recommended** you keep a copy of this outline with your academic records.
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

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|-----|---------------|---|--------------------|--|
| (a) | Instructor: | Bree Wilton | | |
| (b) | Office Hours: | 10:30 – 11:30 MWF and 2:30 – 3:30 TTh or by appointment | | |
| (c) | Location: | E266 | | |
| (d) | Phone: | 250-370-3504 | Alternative Phone: | |
| (e) | Email: | wiltonb@camosun.bc.ca | | |
| (f) | Website: | | | |

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

Upon completion of this course the student will be able to:

1. Compute and interpret descriptive statistics.
2. Perform calculations that apply the basic properties and concepts of probability.
3. Make statistical inferences for one population and two populations.
4. Make statistical inferences for more than two populations (ANOVA).
5. Apply the technique of linear regression in circumstances where appropriate and assess the usefulness of a linear model in these situations using the concept of correlation.
6. Apply basic methods to analyze categorical data.
7. Use the statistical software MINITAB to perform basic data analysis.

3. Required Materials

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| (a) | Texts | Textbook: Introduction to the Practice of Statistics (6 th edition), Moore, McCabe and Craig. Freeman, 2009. Lab Manual: Math 216 Lab Manual, Calver, Chen and Salloum. |
| (b) | Other | A Sharp EL-531 (X or W) Scientific Calculator. <i>No other make/model of calculator is permitted, nor are other electronic devices such as cell phones, iPods, electronic translators, etc.</i> |

4. Course Content and Schedule

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|---------------------------------------|-------------------------------|
| Looking at Data - Distributions | 1.1 – 1.3 |
| Looking at Data – Relationships | 2.1 – 2.5 |
| Producing Data | 3.1 – 3.4 |
| Probability – The Study of Randomness | 4.1 – 4.5 |
| Sampling Distributions | 5.1 – 5.2 and Poisson handout |
| Introduction to Inference | 6.1 – 6.3 |
| Inference for Distributions | 7.1 – 7.2 |
| Inference for Proportions | 8.1 – 8.2 |
| Analysis of Two-Way Tables | 9.1 – 9.4 |
| Inference for Regression | 10.1 |
| Analysis of Variance | 12.1 |

Minitab Labs: This course includes 7 lab sessions. You will need the lab manual for each lab, except for the Lab Intro. The lab manual is available at the bookstore. The labs will be held in the computer lab E115 on the following Thursdays: **September 8, September 15, September 29, October 13, November 3, November 24** and **December 1**. The labs are designed to familiarize you with the use of a computer as a tool for statistical analysis. The computer software we use is Minitab 16. Each lab session includes a lab assignment to be submitted 7 days after your lab day. There will be a lab final exam in the last week of classes. *Please note that Minitab can be accessed in all GP labs and the Learning Commons.*

5. Basis of Student Assessment (Weighting)

| Score 1 | | Score 2 | |
|-------------------------------|-----|-------------------------------|-----|
| Assignments / Labs | 15% | Lab Final | 10% |
| Tests (50 min each) | 35% | Cumulative Final Exam (3 hrs) | 90% |
| Lab Final | 10% | | |
| Cumulative Final Exam (3 hrs) | 40% | | |

To earn an A+ in the course, you must obtain at least 90% on both Score 1 and Score 2. For all other grades, your course grade will be the higher of Score 1 and Score 2 if all homework and lab assignments have been completed in a satisfactory manner and your attendance has been excellent; otherwise, your course grade will be Score 1. *Note that in order to pass this course (D or higher), you must obtain a final examination score of 40% or higher.*

All tests must be written during the scheduled times. In the event that you missed a test due to family emergency or illness, the weight of the test will be put on the final exam if a note (email or paper) has been sent to the instructor before the test time. NO late assignments or lab assignments will be accepted for credit. Final examinations will be scheduled by the college and they will take place during **December 12-17 & 19-20. You must be available to write the final examination at the scheduled time.**

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

Standard Grading System (GPA)

| Percentage | Grade | Description | Grade Point Equivalency |
|------------|-------|---|-------------------------|
| 90-100 | A+ | | 9 |
| 85-89 | A | | 8 |
| 80-84 | A- | | 7 |
| 77-79 | B+ | | 6 |
| 73-76 | B | | 5 |
| 70-72 | B- | | 4 |
| 65-69 | C+ | | 3 |
| 60-64 | C | | 2 |
| 50-59 | D | Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite. | 1 |
| 0-49 | F | Minimum level has not been achieved. | 0 |

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at camosun.ca for information on conversion to final grades, and for additional information on student record and transcript notations.

| Temporary Grade | Description |
|-----------------|---|
| I | <i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family. |

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| IP | <i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. <i>(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)</i> |
| CW | <i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement. |

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

[ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED](#)