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| **CAMOSUN COLLEGE** | **School of Arts & Science**<br>**ENVIRONMENTAL TECHNOLOGY DEPARTMENT**<br>**ENVR 229**<br>**Quantitative Assessment**<br>**Quarter or Semester/Year W2016** |

# COURSE OUTLINE

**The course description is online @ http://camosun.ca/learn/calendar/current/web/envr.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: | Dr. David Blundon | | |
| (b) | Office Hours: | Monday 10:30 - 12:20 PM and 1:30 - 2:20 PM; Tuesday1:30 - 2:20 PM. | | |
| (c) | Location: | F-246 | | |
| (d) | Phone: | 250 370-3984 | Alternative Phone: | |
| (e) | Email: | blundond@camosun.bc.ca | | |
| (f) | Website: | | | |

## 2.   Intended Learning Outcomes

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

1.   **Use a calculator and specialized software to solve statistical problems.**
2.   **Use R statistics to create graphs and perform statistical anmalysis.**
3.   **Evaluate parametric and non-parametric statistical test results.**
4.   **Describe and compare sampling designs.**
5.   **Describe and compare experimental designs.**
6.   **Identify assumptions and potential violations of specialized analysis.**
7.   **Compare univariate and multivariate analysis of data.**
8.   **Compose sampling and experimental designs for a variety of scenarios.**
9.   **Evaluate sampling and experimental results.**
10.   **Discuss the appropriateness of selected designs and multivariate analysis.**
11.   **Evaluate the results of multivariate analysis.**

## 3.   Required Materials

(a)   **Texts**
*Ecological Methodology by Charlie Krebs (available on his website and D2L)*
*http://www.zoology.ubc.ca/~krebs/books.html*
*Lectures and assignments posted on D2L.*

(b)   **Other**   **(provided by the college)**
**Programs for Ecological Methodology, Version 7.02 by Krebs, C.J. 2009.**
***PC-ORD** Multivariate Analysis of Ecological Data, Version 6.*
***R** statistics (http://www.r-project.org/) – download this onto your computer.*
**Microsoft Excel.**

## 4.   Course Content and Schedule

**Introduction to Quantitative Analysis**
**Sampling Designs**
**Experimental Designs**
**Review of Descriptive Statistics**
**Probability Distributions**
**Review of Parametric versus Non-Parametric Statistics**
**Anova**

**Simple and Multiple Regression**
**Multivariate Analysis**
**Mark-Recapture Techniques, Removal Methods, Quadrat Counts**
**Line Transects and Distance Methods**

| | | Dr. David Blundon | | | | |
|---|---|---|---|---|---|---|
| **W2016** | | **Office F246** | | | **Phone: 3984** | |
| | **MONDAY** | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** | **SATURDAY** |
| **8:30-9:20** | ENVR 246 001 Lec E310 | | | | | |
| **9:30-10:20** | | ENVR 229 001A Lab E100 | | | | |
| **10:30-11:20** | OFFICE HOUR | | | | ENVR 229 001A Lec E201 | |
| **11:30-12:20** | OFFICE HOUR | | | | | |
| **12:30-1:20** | | | | | | |
| **1:30-2:20** | OFFICE HOUR | OFFICE HOUR | ENVR 246 001 Lab F244 | | | |
| **2:30-3:20** | | | | | | |
| **3:30-4:20** | | | | | | |
| **4:30-5:20** | | | | | | |
| **5:30-6:20** | | | | | | |
| **6:30-7:20** | | | | | | |
| **7:30-8:20** | | | | | | |
| **8:30-9:20** | | | | | | |

## 5. Basis of Student Assessment (Weighting)

### Lecture/Lab Exams - 60%

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| **Exam I - 20%** | **Week 7: Friday February 26:  2 hours** |
| **Lab Exam - 15%** | **Week 14: Tuesday Lab Time (April 12: 3 hours)** |
| **Exam II - 25%** | **Week 15: Exam Period (April 18 – 26): 3 hours (see posted schedule)** |

### Assignments - 40%

**10  assignments   (TBA)**

### Other (attendance)

**Make-up lectures and labs are not offered. If you are unable to attend your regularly scheduled lecture or lab due to illness, contact the instructor. Lecture and Lab attendance is compulsory. You will loss 2% of your lecture mark for each lecture missed. You will lose 10% of your mark for each lab period missed.**

## 6. Grading System

### 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** | *Incomplete*:  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. |
| **IP** | *In progress*:  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. *(For these courses a final grade will be assigned to either the 3$^{rd}$ course attempt or at the point of course completion.)* |
| **CW** | *Compulsory Withdrawal:*  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

### Dr. David Blundon
### W2016 — Office F246 — Phone: 3984

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