

**STAT 359/563, BIOL 563 Section A01 - Data Analysis**  
Tues, Wed, Thurs 1:30 - 2:20, *University of Victoria, Fall 2015*

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**Prerequisites:** One of Stat 252, 254, 255, 260, ECON 245, GEOG 226, PSYC 300A, SOCI 371A, or equivalent. For Stat 563, permission of the instructor.

**Textbook:** *Statistics. An Introduction using R* by Michael J. Crawley. (2005), Wiley.

**Objectives:** To develop an understanding of techniques that are commonly used for statistical analysis. To form a solid understanding of programming in the R statistical software.

**Topics to be Covered:** Experimental design and statistical fundamentals, central tendency, variance, skewness, kurtosis, inference for single samples, inference for two samples, statistical modeling, regression, analysis of variance, analysis of covariance, multiple regression, Poisson regression, binomial regression, and methods for event-time data.

**Statistical Software and Computer Labs:** R, 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](http://www.uvic.ca) → **Computing** → **Students** → **Computing Labs**. A Netlink account is needed to use the PCs in these labs. To obtain a netlink account go to [www.uvic.ca](http://www.uvic.ca) → **Computing** → **NetLink**. R can be downloaded for free at <http://www.r-project.org/>.

**Assessment:** The final grade will be based on the following:

<b>Components</b>	<b>Weight</b>	<b>Tentative Due Date</b>
Assignment 1	10%	September 30
Assignment 2	10%	October 16
Assignment 3	10%	November 6
Assignment 4	10%	November 27
Midterm	20%	November 13
Final Exam	40%	TBD, during April exam period

Students are <b>strongly</b> advised <b>NOT</b> to make final plans for travel or employment during the exam period until after the exam schedule is known. Special arrangements will <b>NOT</b> be made for examinations that may conflict with such plans.
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The department course policy statements are available at the following links:

- Undergraduate link <http://www.uvic.ca/science/math-statistics/undergraduate/course-policies/index.php>
- Graduate link <http://www.uvic.ca/science/math-statistics/graduate/course-policies/index.php>

**Commitment to Inclusivity and Diversity:** The Resource Centre for Students with a Disability ([www.resd.uvic.ca](http://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.

**Course experience survey:** I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey you will receive an email inviting you to do so. You will need to use your UVic netlink ID to access the survey, which can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.