

BIOLOGICAL STATISTICS
STAT 3615, CRN: 15963
Spring 2012

Course Description and Objectives: This is an introduction statistics course for biology majors. The emphasis in this course will be on the application of statistical methods and interpretation of their results. Motivation is mainly from examples. As such, I hope to provide a broad overview of and introduction to the field of statistics with a focus on descriptive and inferential statistics in a biological context. Fundamental principles, one- and two-sample parametric inference, simple linear regression, and frequency data are some of the topics that will be covered. I am more than happy to work with you to reach this end and encourage you to approach me in regards to any questions or problems you may have. Stat 3615 partially duplicates Stat 3005 and Stat 4604; only one may be taken for credit.

Instructor: Xinran Hu
Email: huxinran@vt.edu
Class: TR 2:00 – 3:15; LITRV1870
Office: Hutcheson 503 B
Office Hours: TR 3:15-4:15 and by appointment

Grader: Xiang Zhang
Email: xiang@vt.edu

Materials:

Text: Baldi, Brigitte & Moore, David S. *The Practice of Statistics in the Life Sciences* 2nd edition. New York: W. H. Freeman and Company.

Calculator: A basic scientific calculator with statistical functions will be needed. TI-83, TI-83 Plus, TI-84, or TI-84 Plus calculators are preferred and allowed for exams as long as the memory of the calculator is cleared before each exam.

Supplemental materials:

In conjunction with the textbook, we will use three additional resources throughout the semester:

1. Scholar – Assignments, announcements, lecture slides, etc.
2. Textbook CD – Contains datasets used in our class.
3. JMP – Statistical software packages for data analysis (**FREE** through VT).

Grading: Grading for this course will be conducted on the standard 10 point scale, with plusses/minuses assigned when appropriate. The grading breakdown is as follows:

Homework/Quizzes:	20%
Exam 1:	15%
Exam 2:	20%
Exam 3:	20%
Final:	25%

Homework: Homework will be assigned, and due, on a regular basis. Due dates may vary, but will be announced in class as well as posted on Scholar with the assignment. Solutions will typically be provided. Some guidelines for homework are as follows:

1. Late homework will not be accepted, no exceptions.
2. For the homework problems, you may work with others but you must submit your own answers. If cheating is suspected, then all materials will be submitted to the Honor Court.
3. Work must be shown in order to receive credit.
4. All problems on some homework sets may not be graded. You are responsible for checking your answers with posted solutions on Scholar.
5. The solutions found on Scholar are the level of work expected for the class.
6. From the day the homework grades are posted, you have one week to dispute the grade – please talk to the grader first before contacting me.
7. Homework problems should be compiled in the correct order.
8. The paper must be without ragged edges and staple multiple pages together.
9. Put your name on it! If we don't know whose work it is, we can't give you a grade.

Failure to do any of the last three may result in a deduction of points from that homework.

Attendance/Quizzes: From time to time we may have announced or unannounced quizzes in class or on Scholar. They will be on any material covered to date, including assigned reading. Along these lines, attendance is not required per se, but it will be your loss if you miss an unannounced quiz.

Exams: There will be three exams during the course of the semester. The exams are closed book and closed notes. The dates will be announced in class, at least one week in advance. There are no make-up exams unless I receive a letter from the dean of your college indicating you have an approved reason for missing the scheduled exam date. Tentative dates are as follows:

Exam 1 – Thursday, February 16st

Exam 2 – Thursday, March 22nd

Exam 3 – Thursday, April 26th

Final: The final is comprehensive, closed book and closed notes. It is scheduled for Wednesday, May 9th from 1:05 – 3:05.

Special Requests: If for any reason you need special considerations please let me know as soon as possible. We can work together to make sure your needs are met. All requests must be approved by the university. Feel free to visit www.ssd.vt.edu for additional info.

Honor Code: The Virginia Tech Honor Code will be strictly enforced in this course. All graded assignments must be composed of your own work. More information about the Honor Code can be found at www.honorsystem.vt.edu.

All dates and policies are subject to adjustment as the class progresses. In such instances, I will give you sufficient notice.