

COURSE INFORMATION

STT 430/630 Biostatistics
STT 706 Introduction to Statistical Modeling of Environmental Data
Winter Quarter, 2009
4:10–5:50 TR in A330 Creative Arts

Prerequisites: STT 265 or equivalent or instructor's permission.

General Information: This course is designed to provide a groundwork in basic statistical principals and methodology for students of environmental and biological sciences.

Instructor: Thaddeus Tarpey, 141 MM Building, 775-2861.

Email: thaddeus.tarpey@wright.edu.

Office hours: 1-2:00 p.m. Tuesday and Thursday, and by appointment. Email is also a good way to get in touch with me. I typically check my email regularly through the day.

Text: No textbook is required for this course. Online notes are available for course material.

Lecture notes are available in pdf files on the course website:

http://www.math.wright.edu/People/Thad_Tarpey/stt630.html

Homework: There will be a 10 point take home assignment given at the end of every class period (except for the first and last day of class, the class period preceding the midterm exam and the day of the midterm exam). The homework assignment will be due *at the beginning* of the next class period. Late homework assignments will not be accepted. If you must miss a class, please turn in your assignment **before** the class meets. Homework problems will be based on material covered in the class lecture and will involve computations and interpretations of statistical results. The lowest homework grade will be dropped when computing the homework average for the course. Homework assignments should be done independently.

Software: For some assignments, statistical software will be needed to obtain results. We will use the statistical software package *SAS* in class and for homework. The use of the SAS software will be demonstrated in class. SAS is available in CATS computer labs around campus (see the CATS website for details). Students can also obtain their own copy of SAS from WSU for \$20. For details, see the following website:

<http://www.wright.edu/software/products.html>

Grading: There will be a midterm exam and one **comprehensive** final exam. The final grade will be determined using the following weights: 40% for homework, 25% for the midterm, and 35% for the final exam. A course average of at least 90% earns an A, 80% a B, 70% a C, and 60% a D.

Important Dates:

Midterm	Tuesday, February 10, 2009 (in class)
Final Exam	Tuesday, March 17, 2008, 5:45–7:45 p.m.

SYLLABUS

- Week 1.** Chapter 1 Introduction,
Chapter 2: Descriptive Statistics, mean, median, standard deviation, empirical rule.
- Week 2.** Chapter 3 Probability basics, discrete probability distributions, binomial distribution.
- Week 3.** Chapter 4: Continuous distributions, normal distribution, expectation, variance, linear combinations, covariance, correlation.
- Week 4.** Chapter 5: Estimation, central limit theorem, t -distribution, confidence intervals, sample size determination.
- Week 5.** Finish Chapter 5 and
Review
- Week 6.** Midterm,
Chapter 6: Introduction to hypothesis testing.
- Week 7.** Chapter 6 continued.
- Week 8.** Chapter 7: Two Sample Inference
- Week 9.** Chapter 8: Regression
- Week 10.** Chapter 9: Analysis of Variance; Review

This schedule is subject to change depending on the pace of the class.