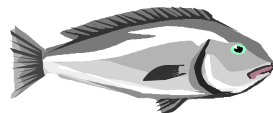


Statistical Techniques II

EXST7015

Introduction



SYLLABUS

- **Class Meets : Tuesday and Thursday from 1:30 to 3:00 in room 155 Coates Hall**
- **Professor: JAMES P. GEAGHAN**
 - ▶ **e-mail: jgeaghan@lsu.edu (checked weekly)**
- **Office: 67 Agriculture Administration Bldg**
- **Office hours: Tuesdays and Thursdays, 3:15-4:00**
 - ▶ **(or call for appointment anytime)**
- **Telephone: 388 - 8303**
- **Internet materials: www.stat.lsu.edu**
 - ▶ **<http://www.stat.lsu.edu/faculty/geaghan/jpghome.html>**

SYLLABUS (*continued*)

- **Lab Instructor: Lisa Morris**
 - ▶ **Labs meet: meet for 2 hours**
 - ▶ **(1) Tuesday at 4:30,**
 - ▶ **(2) Wednesday at 11:30 and**
- **TA's office hours announced by TA.**
- **Labs will be available online: also linked to my EXST7015 web page.**
- **Labs should reflect recent lecture material, but most aspects of the lab are at the discretion of the TA.**

SYLLABUS (*continued*)

■ Grading Points:

- ▶ 2 exams count 100 points each (200 total)
- ▶ 1 final counts 150 points
- ▶ Term paper counts 50 points
- ▶ Daily design counts 25 points
- ▶ Weekly lab assignments count 100 points
- ▶ TOTAL = 525 points

■ Course Grading:

- ▶ $(\text{Exam1}\% + \text{Exam2}\% + \text{Lab}\% + 0.5*\text{Paper}\% + 0.25*\text{DAILY}\% + 1.5*\text{Final}\%)/525 = \text{SCORE}$

SYLLABUS (*continued*)

■ **Exam Schedule:**

- ▶ **Exam 1: Thursday, September 30**
- ▶ **Exam 2: Thursday, November 04**
- ▶ **Term paper: Tuesday, November 30**
 - due during class period, no extensions
 - see description of this report
- ▶ **Final Exam, date set by University!!!!**
 - **Monday, December 06, 2004 from 10:00 AM - 11:00 AM**

SYLLABUS (*continued*)

- **Letter grade assignment**
- **Guaranteed minimum grade**
- **90 - 100 points, minimum grade of **A****
- **80 - 89.9 points **B****
- **70 - 79.9 points **C****
- **60 - 69.9 points **D****

SYLLABUS (*continued*)

- **TEXT: Freund, Rudolph J. and William J. Wilson. 2003. Statistical Methods, Academic Press, N.Y.**
- **get second edition (2003) or revised edition (1997), not original 1993 edition**
- **I have this listed as RECOMMENDED instead of required. It will be used for lab assignments and as a reference.**

Catalog Description

- **Catalog Course Description: EXST7015 Statistical Techniques II (4) F, S Prereq: EXST7005 or equivalent. 3 hrs. lecture; 2 hrs lab. Credit will be given for only one of the following: EXST7013, EXST7014, EXST7015. Multiple classification analyses of variance and covariance, sampling designs, parameter estimation, multiple regression and correlation, tests of specific hypotheses, and factorial experiments; emphasis on field-oriented life science research problems.**
- **Prerequisite: EXST7005 or equivalent. EXST7003 and EXST7004 are equivalent. Outside of these, I get to decide what is equivalent.**

Course outline

- **A comprehensive outline is available on the Internet. An overview is given below.**
 - ▶ **Regression**
 - **SLR, Multiple, Curvilinear & Logistic**
 - ▶ **Experimental Design**
 - **CRD, RBD, LSD, Split-plot & Repeated Measures**
 - ▶ **Treatment arrangements**
 - **single factor, Factorial, Nested**

Course Objectives

- **Further develop concepts, terminology and notation from the basic methods courses to advanced techniques for making statistical inferences.**
- **Cover the major methodology of parametric statistics used for prediction and hypotheses testing - mostly regression and experimental design.**

Course Objectives (*continued*)

- **Emphasis will be on RECOGNIZING analytical problems and on statistical analysis using SAS software.**
- **We will see SAS output for virtually all analyses covered this semester.**

Daily Design

- **New, still in development.**
- **I will be placing a design description on the Internet for each class. You should plan on examining this design before class. At the beginning of each class I will announce whether we have a quiz on that design or not.**
- **A quiz will consist of describing the exp. and samp. units, treatments, blocks, random effects, etc.**

Daily Design (*continued*)

- **I do not intend to spend much time on this on a daily basis. If there is a quiz I will allow 5 minutes for you to answer and pass in quiz. If not, I will give you the answers.**
- **We will address most of these in the design section of the course (following regression). However, some will be covered in the daily design.**

A note on notes

- **Printed copies of all notes, including freelance slides and SAS handouts, are available at "Copies too".**
- **Most materials will also be available on the Internet linked to my home page under EXST7015 materials.**
- **Notes are available as HTML images on the Internet, but this is not a good medium for printing.**
- **Lotus smartsuite with the FREELANCE graphics at the LSU ID card office.**

Notes on Exams

- **I usually schedule a review session late on Tuesday for the Thursday exams.**
 - ▶ **Review session is entirely voluntary, and you may leave anytime.**
 - ▶ **I will have not plan on covering material. I plan only to answer questions.**
 - ▶ **I may post a page about anything new or particularly interesting in the review session on the class web page.**
- **Old exam copies are available on the web page.**

Notes on Exams (*continued*)

- **On exams**
 - ▶ **You will be allowed to bring a calculator**
 - **I do not expect to put many calculations on the exam, but there may be some.**
 - **For example, calculating a t-test for a slope for an hypothesized value other than zero (thought this may be in the output, always check first).**
 - **Also confidence intervals on slopes.**

Notes on Exams (*continued*)

- **On exams**
 - ▶ **You may also bring an 8.5 by 11 inch sheet of paper with equations or whatever else you wish to include. You may write on both sides of that piece of paper.**
 - ▶ **You will need to understand MY t-tables. See interment for copies of these tables. I will provide you with these on an exam.**
- **All exams, including the final, will be in our regular classroom(s).**