

Syllabus for Maths 375: Introduction to statistics, Spring 2017

Instructor: Dr. Martial Longla

Office: Hume Hall 308

Office hours : Tuesday, Thursday: 2:30 - 4:00, or by appointment

Email: mlongla@olemiss.edu Telephone : (662) 915-7436

Course Information

Textbook: Statistics for Engineers and Scientists by William Navidi published by McGraw-Hill Science/Engineering/Math (3rd edition)

Course website: http://connect.mcgraw-hill.com/class/m_longla_001

Time/Place: Tu- Th: 4:30 PM - 5:45 PM/ Jackson Ave. Ctr. Room B001

Course Description

This course is an introduction to statistics for students in mathematics, engineering and computer science. We will cover the following topics: descriptive statistics, basic probability with coverage on Bayes rule and application to reliability analysis, random variables, common distributions including Binomial, Poisson, Exponential, Normal and t distribution, Central Limit Theorem, large/small sample confidence intervals and hypothesis tests, simple linear regression with emphasis on model diagnostic procedures. Statistical software R will be implemented for demonstration of statistical methods. One-semester calculus background is assumed.

LEARNING OBJECTIVES:

After completing this course, students should be able to:

- Understand basic probability concepts and probability models;
- Know which statistical method is appropriate given a typical problem;
- Apply statistical procedures to data and interpret results;
- Have familiarity with Statistical Software R, SAS, EXCEL;
- Enhance critical statistical thinking.

TESTING INFORMATION:

- Class attendance – Attendance is mandatory.
- Homework – There are homework assignments (due on Tuesdays) totally worth 100pts.
- Tests – There are 3 midterm exams each counting for 100pts each and a final exam counting for 200pts. The test dates are listed below. No make-up tests will be given except in cases of verified emergencies.

□ There will be a 10-minutes quiz in class every Tuesday, based on the current material. The quiz will count for 50pts.

Grade letters and scores

A: 580-650 (includes A and A-), B: 520-579 (Includes B-, B and B+), C: 460-519 (includes C-, C and C+), D: 400-459, F: 000-399. I reserve the right to make the grading scale easier.

Calculator Policy

An inexpensive scientific calculator is sufficient in Math 305 but is not necessary. Calculators will NOT be allowed during exams or quizzes. While I cannot stop you from using a calculator at home, I encourage you to do the homework without a calculator. Calculators, cell phones, ipods, and other electronic equipment are prohibited during exams.

Additional Policies

1. Any person who must miss a scheduled mid-term exam or quiz because of an official university function must reschedule with the instructor to take the test at a time before the test is scheduled to be given. No other rescheduling will be allowed. If asked for by the instructor, official documentation must be provided.
2. A student who wishes to discuss the grading policy and/or testing policy, or wishes to have a conversation regarding the instructor of the course should make an appointment with the course supervisor in the Department of Mathematics.
3. An I grade will not be given without the permission of the Department of Mathematics.
4. Any student having three or more final exams scheduled for the same day may arrange with the instructor to take the exam at another time. This is the only reason that a final exam may be rescheduled.
5. Every student must take each exam at the time scheduled. The only exceptions are those students affected by (1) or (4) above.

Course Withdrawal

The withdrawal deadline is March 3rd, 2017. After the Course Withdrawal Deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme

and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.

Academic Needs

It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). That office through the student will then make contact with the instructor of this class. The instructor will then work with the student so that a reasonable accommodation of any disability can be made.

Academic Honesty

Cheating: The following statement is the policy of the Department of Mathematics regarding cheating:

Offenses: Cheating on any exam or quiz, theft or attempted theft of exam questions, possession of exam questions prior to the time for examination, or the use of an illegal calculator on tests or quizzes shall all be offenses subject to appropriate penalties.

Penalties: The penalty for commission of any offense set out above is failure in the course and, subject to the approval of the Chancellor, dismissal or suspension from the University.

Plan:

Part 1: 1.1, 1.2, 1.3, 2.1, 2.2, 2.3

Part 2: 4.1, 4.2, 4.3, 4.4, 4.5, 4.7, 4.10, 4.11

Part 3: 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7

Part 4: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 7.1, 7.2, 7.3, 7.4.

Part 5: review and Final Exam.