

Math 375 – Introduction to Statistics, Spring14

Instructor: Dr. Hailin Sang
Office: Hume Hall 325
Office hours: M W 10:00-11:00 am
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COURSE INFORMATION:

Text: Statistics for Engineers and Scientists, 3rd edition, by William Navidi
Course website: http://connect.mcgraw-hill.com/class/math375_spring2014_sang
Time/Place: M W F 8:00-8:50am; Hume 113

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 enable 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;
- Enhance critical statistical thinking.

GRADE INFORMATION:

- Class attendance – Attendance is mandatory.
- Homework – There are 11 online assignments totally worth 30% of the course grade.
- Tests – There are 2 midterm exams each counting for 20% and a final exam counting for 30%. The test dates are listed below. No make-up tests will be given except in cases of verified emergencies.

A 93-100%	A- 90-92%	B+ 87-89%	B 83-86%	B- 80-82%
C+ 77-79%	C 70-76%	D 60-69%	F below 60%	

ACADEMIC CONDUCT AND DISCIPLINE:

Students are expected to adhere to the University of Mississippi Creed and the Standards of Honesty as described in Policy Code ACA.AR.600.001 and written in the M Book. If you violate the Standards of Honesty, you will be reported and subject to the appropriate sanction which may include expulsion from the University.

TENTATIVE AGENDA: If changes are made, you will get advance notification in class.

Week/Date	Topic	Activity
<i>Week 1</i>	<i>Chapter 1: Sections 1.1-1.3</i>	<i>HW 1</i>
<i>Weeks 2-3</i>	<i>Chapter 2: Sections 2.1, 2.3, 2.4</i>	<i>HW 2, HW 3</i>
<i>Weeks 4-6</i>	<i>Chapter 3: Sections 4.1-4.3, 4.5,4.7,4.10, 4.11</i>	<i>HW4, HW5</i>
<i>March 3</i>	<i>Chapters 1-3</i>	<i>Midterm Exam 1</i>
<i>Weeks 7-8</i>	<i>Chapter 5: Sections 5.1-5.7</i>	<i>HW6, HW7</i>
<i>Weeks 9-11</i>	<i>Chapter 6: Sections 6.1-6.8</i>	<i>HW8, HW9</i>
<i>April 14</i>	<i>Chapters 5-6</i>	<i>Midterm Exam 2</i>
<i>Weeks 12-13</i>	<i>Chapter 7: Sections 7.1-7.4</i>	<i>HW10, HW11</i>
<i>Week 14</i>	<i>Review for final exam</i>	
<i>May 5, Monday@8:00am</i>	<i>Cover all chapters</i>	<i>Final Exam</i>