Math 375 – Introduction to Statistics, Section 1, Spring 18

Instructor: Dr. Hailin Sang
Office: Hume Hall 325
Office hours: TuTh 2:30-3:45 pm
Email: sang@olemiss.edu (preferred contact)
Phone: (662)-915-7398

COURSE INFORMATION:
Text: Statistics for Engineers and Scientists, 4th edition, by William Navidi
Course website: http://connect.mheducation.com/class/h-sang-math375_spring2018
Time/Place: TuTh 4:30-5:45 pm; Jackson Ave. Ctr. Room B001

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.

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

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<th>Topic</th>
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<td>Week 1 (Jan. 22)</td>
<td>Chapter 1: Sections 1.1-1.3</td>
<td>HW 1</td>
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<td>Weeks 2-3 (Jan. 29)</td>
<td>Chapter 2: Sections 2.1, 2.3, 2.4</td>
<td>HW 2, HW 3</td>
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<td>Weeks 4-6 (Feb. 12)</td>
<td>Chapter 4: Sections 4.1-4.3, 4.5, 4.7, 4.10, 4.11</td>
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<td>March 5</td>
<td>Chapters 1, 2, 4</td>
<td>Midterm Exam 1</td>
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<td>Weeks 7-8 (Mar. 5)</td>
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<td>Weeks 9-11 (Mar. 26)</td>
<td>Chapter 6: Sections 6.1-6.8</td>
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<td>April 17</td>
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<td>Weeks 12-13 (Apr. 16)</td>
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<td>Week 14 (April 30)</td>
<td>Review for final exam</td>
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<td>May 9, Wednesday @ 4:00 pm</td>
<td>Cover all chapters</td>
<td>Final Exam</td>
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