Math 115 (Honors Section): Introduction to Statistics, Spring 2018

Instructor: Dr. Xin (Sheen) Dang
Office: Hume Hall 315
Office hours: M W 1:30-3:30 pm or by appointment
Email: xdang@olemiss.edu (preferred contact)
Phone: (662) 915-7409 (office)

COURSE INFORMATION:
Text: A First Course in Statistics by James T. McClave and Terry Sincich
      (Custom Edition for University of Mississippi)
Software: R (Open Source Statistics Software)
Website: Course ID: dang18513 @ http://pearsonmylabandmastering.com
Time/Place: M W F 9:00-9:50 pm; Hume Hall 221

DESCRIPTION:
Introduction to statistical concepts and techniques including descriptive statistics, random
variables, probability distributions, sampling distributions, confidence intervals and hypothesis
tests. Statistical software R will be taught and implemented for demonstration of statistical methods.

LEARNING OBJECTIVES:
After completing this course, students enable to
• Understand basic probability and statistics concepts;
• Enhance critical statistical thinking;
• Know which statistical method is appropriate given a typical problem;
• Have familiarity with Statistical Software R.

GRADE INFORMATION:
• Homework – 16 online assignments (total 175 points) will be given through the semester.
  Use Course ID: dang18513 to enroll http://pearsonmylabandmastering.com to do online
  homework.
• R – R will be taught through worksheets. A small R project is assigned and counts for 25 points.
• Tests – There are 4 tests during the semester each counting for 50 points. However, the lowest
test can be dropped and hence the points earned from tests are 150 points.
• Final exam is comprehensive and counting for 150 points.
• The overall total points of the course are 500 points.

A 93%  A- 90%  B+ 87%  B 83%  B- 80%  C+ 77%  C 70%  D 60%  F <60%

VERY IMPORTANT:
1. If a test is missed for ANY reason, a grade of 0 will be given. There will be absolutely
   NO make up tests given for ANY reason.
2. Any student who will miss one of the four tests because of an official University function
   must reschedule and take this test at a time BEFORE the test is scheduled to be given.
   NO OTHER rescheduling will be allowed.
3. An "I" grade will not be given without the permission of the Department of Mathematics.
4. Any student having three or more final examinations scheduled for the same day will arrange with the instructor to take the noon examination or the 7:30 p.m. examination on some other mutually satisfactory date.
5. Every student must take the final exam at the time scheduled. The only exceptions are those students affected by # 2 or # 4 above.

HONOR CODE:
"On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this ____________________________

Signed ________________

The Sally McDonnell Barksdale Honors College employs an Honor Code centered on honesty, sincerity, and justice. The purpose of this Honor Code is to strengthen the sense of community in which the Honors College takes great pride. Its strength depends on the personal honor and integrity of each Honors College member. Honors students are required to write the statement above on any assignment submitted for grading in Honors classes, thereby reinforcing the atmosphere of trust within the Honors College community. A student with a documented case of plagiarism or academic cheating in an honors course will face the possibility of receiving the grade of F for the course and being dismissed from the Honors College. Specific consequences of such behavior will be determined by the administration and individual faculty member.

In addition, the Honors College instituted the following policy in 1999, which is in effect in all honors classes:

Academic integrity is essential to all the values upon which the university is founded. Honors students must therefore embody academic honesty in all aspects of their work. A student with a documented case of plagiarism or academic cheating in an honors course will face the possibility of receiving the grade of F for the course and being dismissed from the Honors College. Specific consequences of such behavior will be determined by the administration and individual faculty member.

ATTENDENCE POLICY:
Honors courses are small classes, usually taught in seminar style with no more than fifteen students. They are reading, writing and discussion intensive. Student participation is therefore essential. In addition, the university commits extensive resources, especially in terms of faculty time, to these small classes. For these reasons, the Honors College has an attendance policy for all honors courses, both required and departmental. Students are entitled to two absences in Tuesday/Thursday classes and to three absences in Monday/Wednesday/Friday classes. Consequences of additional absences will be determined by the individual faculty member, but additional absences will lower your grade.

In this class, students are allowed three absences. Five points (1% of the total) are deducted from the final points total for each absence above the limit. It is the student’s responsibility to make sure his/her attendance record is correct.

Students who do not attend class within the first two weeks will be dropped automatically.
TENTATIVE AGENDA: Friday’s class is often used to learn R. If changes are made, you will get advance notification in class.

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<thead>
<tr>
<th>Week/Date</th>
<th>Topic</th>
<th>Activity</th>
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<tbody>
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<td>Week 1, Jan 22-26</td>
<td>Chapter 1: Sec 1.1-1.6</td>
<td>HW 0, HW 1</td>
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<td>Week 2, Jan 29-Feb 2</td>
<td>Chapter 2: Sec 2.1-2.7</td>
<td>HW 2, HW 3, HW 4</td>
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<td>Week 3, Feb 5 - 9</td>
<td>Chapter 2: Sec 2.8, Chapter 3: Sec 3.1</td>
<td>HW 5</td>
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<td>Week 4, Feb 12 - 16</td>
<td>Test 1; Chapter 4: Sec 4.1-4.2</td>
<td>HW 6</td>
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<td>Week 5, Feb 19 -23</td>
<td>Chapter 4: 4.3-4.5</td>
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<td>Week 6, Feb 26 – March 2</td>
<td>Chapters 4: Sec 4.8-4.9</td>
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<td>Week 7, March 5 - 9</td>
<td>Test 2 covers Chapter 4</td>
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<td>Week 8</td>
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<td>Spring Break</td>
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<td>Week 9, March 19 - 23</td>
<td>Chapter 5: Sections 5.1-5.2</td>
<td>HW 10</td>
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<td>Week 10, March 26 - 28</td>
<td>Chapter 5: Sections 5.4-5.5</td>
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<td>Week 11, April 2 - 6</td>
<td>Test 3 covers Chapter 5</td>
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<td>Week 12, April 9 - 13</td>
<td>Chapters 6: Sec 6.1-3</td>
<td>HW 13, HW 14</td>
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<td>Weeks 13, April 16 - 20</td>
<td>Chapters 6: Sec 6.4, Sec 6.6</td>
<td>HW15, HW16</td>
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<td>Week 14, April 23 - 27</td>
<td>Test 4 covers Chapter 6</td>
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<td>Week 15, April 30 - May 4</td>
<td>Review for final exam</td>
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<td>May 9, Wednesday@8:00am</td>
<td>Cover all chapters</td>
<td>Final Exam</td>
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