MA180 and MA418 STATISTICS Section ZND, Fall 2019
Syllabus for a Tuesday lecture meeting and Thursday lab meeting
The syllabus is required reading

Section ZND  Tuesday in UH 1005 from 12:30 PM until 1:45 PM  
Thursday in HHB 202 from 12:30 PM until 1:45 PM  
First day of class: Tuesday August 27, 2019  
Last day of class: Thursday December 5, 2019  
Final Exam: Thursday December 12, 2019 @ 10:45 AM

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Objectives  This course supports the development of quantitative literacy. As such, it  
is not about learning how to do the homework and quiz problems and then replicating  
that effort on tests. Rather, the course is about learning the concepts and principles of  
statistics and then being able to choose among various statistical methods when presented  
with a brand-new problem. The actual calculations required in applying statistical  
methods can usually be done by using a calculator or computer program. Students should  
ot expect that test questions will duplicate homework and quiz problems; quite the  
opposite.

Preparing for Tests  There are three principle methods for learning the course material and preparing for the  
tests:

1. Reading the Textbook  
   Students must allocate sufficient study time each week to a careful reading of the  
textbook. Students should read for meaning using markers or pens to underline  
key ideas. If ideas are unclear the students should ask for clarification during  
lectures, lab meetings, or instructor office hours.

2. Taking Notes during Lectures  
   Instructors will cover key ideas during weekly lectures. Students should take  
notes and immediately ask the instructor for clarification whenever something is  
not clear. Students should strive to sit where they can maximize their  
communication with the instructor. Cell phones should be turned off at all times.

3. Doing Homework for Understanding  
   When doing homework problems students should strive for learning and applying  
concepts in each problem, as opposed to just trying to get the correct answers.  
Think about the principles involved in working on the problem, and, once the  
problem is complete, read over the problem again, reviewing the steps involved  
and the reasons behind taking each step.
Course Objectives

Upon successful completion of the course, a student can:

- handle data sets, construct and interpret tables, graphs, and schematic representations of mathematical relations
- identify a problem and translate verbal descriptions into mathematical form
- compute statistics and evaluate the significance of observations
- draw conclusions based upon probability laws and empirical data
- test hypotheses and validate a model based upon evidence
- communicate results in a manner appropriate to the audience in writing or using visual aids (graphs, charts, schemata).
- demonstrate understanding of the following concepts:
  • Sample statistics versus population parameters
  • What constitutes a valid sample
  • Probability, and what is likely to occur
  • Measures of center
  • Measures of variability
  • The idea of a normal distribution
  • The idea of a sampling distribution
  • The concept of a confidence interval
  • The testing of a claim or hypothesis
  • Linear regression analysis

How to access your Course

All Homework, Quizzes, and Tests for this course are available only in the computer program MyMathLab Plus.

A MyMathLab Plus account will have been established for you and must be activated, as follows:
Log in to BlazerNet/Canvas and click on the MyMathLab Plus link. Click on your course. Enter your MyMathLab Plus ACCESS CODE (or purchase it online), OR Click on Pay Later.* (good for 14 days from activation.)

*Once Temporary Access has expired, you must purchase and enter the required access code or you will no longer have access to your course materials and assignments in MyMathLab Plus.

If you have any questions regarding your MyMathLab Plus account, email the course instructor. Please note that there will be NO EXTENSIONS for missed homework, quiz, or test deadlines due to failure to purchase access to your online materials.

Tutors
Please visit Resources on the Math Department website at
https://www.uab.edu/cas/mathematics/resources.

Office Hours M-W 2:30-5pm, in HHB 202, or by appointment.
**Textbook**  
Reading the textbook is required. Bringing the textbook to class is recommended but not required. The 13th edition is required.  
**Book packaged with access code.** You should find copies of the text in the bookstores that are shrink-wrapped with a course access code. You will need the course access code. The book is available in hard cover or soft cover pre-punched for a loose-leaf notebook. The soft cover version is less expensive. The least expensive option is usually the book shrink-wrapped with the access code.  
**Book packaged without an access code.** If you purchase a text that is not shrink-wrapped with an access code, you will have to purchase a stand-alone access code from the bookstore or on-line from the publisher at MyMathLab Plus.  
**Students from a previous semester:** If you have previously purchased an access code for this course, it may be possible to use it again. Let your instructor know if you are using this option.

**Fold-Out Card**  
The book comes with a tear-out, fold-out card at about page 62. This card includes tables of distribution and statistical formulas. You will need this card to work problems in the course. **The card is the only reference document that you can use during testing. It will be provided to you in MyMathLabPlus.** The fold-out card should be brought to class every day, along with a notebook for note-taking purposes.

**Laptops**  
The use of laptop computers is not permitted during course lectures. Rather, students are expected to engage with the instructor and take paper and pencil notes.

**Cell phones**  
**Cell phone use during testing will result in a test grade of zero.** All cell phones, iPhones, iPads, and laptops must be turned off and put away during lectures and testing. **Texting during lectures is strictly forbidden.** Students found to be texting or otherwise on the Internet will receive deductions in participation points, at the discretion of the instructor, and such students may be asked to leave the classroom. In the case of multiple infractions the point deductions will be severe.

**Calculators**  
A good calculator can be useful but is not required. In lieu of a calculator students can use the StatCrunch computer program for homework and quizzes. If you want to use a hand-held calculator, it is recommended that you get a TI-83 Plus or TI-84 Plus.
Make-ups There are no make-ups for missed homework and quiz assignments. This is because they can and should be completed ahead of time. However, you can complete the assignments late for half credit. **One test only**, missed for any reason, can be replaced with your score on the Final Exam. To request a missed test to be replaced, go to the Math Department office in University Hall room 4005 and complete the appeal form. Appeals must be received no later than the last day of class.

Tests There will be four 50-minute tests and a 120-minute final exam. The final exam will be comprehensive. The tests and final exam can all be completed with reference to the formula card provided. The textbook itself cannot be used. You can use your calculator during testing, but not laptops, cell phones or any other Internet access. Students found using their cell phones during testing will receive a zero on the test.

Homework The homework exercises and quizzes are done using a computer program named MyMathLabPlus. In order to register for the on-line portion of the course you will need the access code that comes packaged with the text (or that you purchase on-line if your copy of the text does not include the shrink-wrapped access code). You can use the computers in the UAB Math Learning Lab in room 202 of Heritage Hall, computers in the Library’s ETS facility, or you can use your own computer with an Internet connection. Be aware if you are using your own computer, you may have to download the Flash plug-in in order to do the homework assignments.

Browser The Firefox or Chrome browsers may on occasion give you a more reliable connection to the homework website than other browsers.

Quizzes Like the homework, quizzes are taken on-line. Each quiz can be taken two times (the highest grade will count). **Do not hit the BACK button on your browser when taking a quiz.** This will end your quiz and you will not be able to get back into it. If you think your computer or network connection is not reliable, you should take your quizzes in the UAB Math Learning Lab. Quizzes have a 30-minute time limit. They are open-book. **Students are strongly advised to not wait until the last minute to complete homework and quizzes.** Problems occurring at the last minute are the responsibility of the student.

Reading Quizzes There is a separate reading quiz associated with each reading assignment. Each reading quiz can be taken two times. The higher grade will count. The Reading Quizzes do not have a time limit. Reading quizzes must be submitted no later than 11:59 PM on the day specified in your course schedule.
Due dates  Homework problems can be worked **any number of times** until they are correct. Quizzes can be worked two times (the highest score will count). **There are no extensions of homework, quiz, and reading quiz deadline dates**, so plan to complete them ahead of schedule. Homework sets are due by 11:00 PM and the corresponding quizzes must be submitted no later than 11:59 PM. However, homework and quizzes can be completed for up to half credit after the deadline date.

Reading Assignments
Listed below are the sections of the Textbook that are assigned for reading, and are the basis for the reading quizzes and tests. Reading material titled “Beyond the Basics” is not included.

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Participation
Classroom and lab participation are required. At each class meeting there will be a roll to be signed by the students. 5 points per week are awarded for on-time lecture participation with the fold-out card in hand. Zero points are awarded for missed lectures or missed labs. If the course instructor accepts a written excuse for an absence, the points awarded can be zero to half-credit, at the discretion of the instructor. Up to 5 additional points are awarded each week for lab participation. The score is dependent on the performance of Knowledge Checks completed in lab. (Students absent on University business; e.g. athletics, can make up the points at a scheduled tutoring session outside of normal class time.)

Students arriving late get zero to half-credit, at the discretion of the instructor.

Signing the Roll  Students may not sign the roll sheet for another student. Students engaging in this activity are subject to disciplinary action for academic misconduct, including a grade of F in the course.

Group Project: There will be a group project at the end of the semester where students will have the last two weeks of class to work on it. The grading will include a group and an individual portion. The details of the project will be made available during the Class 13 meeting as well as the group assignments.
Course Grade  based on points earned (not on a percentage)
Reading Quizzes (12 assignments @ 6 points each)  72
Homework (12 assignments @ 6 points each)  72
Quizzes (12 quizzes @ 6 points each)  72
Four tests @ 100 points each  400
Final exam  250
Lecture participation (14 weeks @ 5 pts each)  70
Lab participation (10 weeks @ 5 pts each)  50
Group Project  14
Total possible points  1000
Bonus points available (from Practice Tests)  40

Letter Grade  based on points earned  Note: 749 points is a C, not a B.
880 to 1000 A
750 to 879 B
620 to 749 C
500 to 619 D
Below 500 F

Extra Credit  The four practice tests are for extra credit. Each practice test can be
worked on two times prior to the major test with which it is
paired. The highest grade obtained on a practice test will count, and the
score on the highest grade will earn the student that portion of the ten
available bonus points for each one.

Grade Access  Official student grades are maintained in the Math Department grade
database (a.k.a. MADDIE). To access your grade record, go to
www.uab.edu/mathematics  and click on Student Resources then Check
grades. You will need to enter your BlazerID and password. You can also
access it through Canvas or MyMathLab Plus.

Grade Review  Students are asked to review all grades for accuracy immediately after
they are posted. Quizzes must be reviewed before the date of the mid-term
test with which they are associated. Mid-term tests should be reviewed as
soon as possible, but no later than the date of the next test. Tests that
are not reviewed on this schedule are not eligible for review. All
questions involving homework grades, quiz grades, test grades and
participation points must be resolved before the final exam. Once the
final exam is taken the course is complete, and no further review of in-
term grades is permitted.

MA418  MA418 students must also submit a pass/fail project before the end of the
semester. There will be three parts to be completed throughout the
semester in Canvas. In support of developing writing skills, the project
will include a report describing student observations, presenting logical analysis, and making conclusions.

**Email**

Information about the course (changes to assignments, reminders, schedules, etc.) will be distributed to students using their [BlazerID](https://www.uab.edu/blazerid) email address or Canvas. Each student is required to access their UAB email account daily, as these communications represent official university business. This is a requirement for all UAB students. For UAB email account assistance, send an email to [userservices@uab.edu](mailto:userservices@uab.edu), or call 934-3540.

**Withdrawal**
The last day to withdraw from the course with a grade of “W” is October 18th, 2019. The permission of the instructor is not required.

**Disability Support Services (DSS)**

DSS offers accommodations to students who qualify. The UAB DSS office is located in the Hill Student Center, telephone: 934-4205, e-mail: dss@uab.edu. Students who have a DSS-approved accommodation for extended test times will take quizzes and tests that have longer time durations. See your instructor for further information.