MA480 STATISTICS, Spring 2019
This syllabus is required reading

Section QL
First day of class: Monday January 7, 2019
Last day of class: Friday April 19, 2019
Last day to take the Final Exam: Thursday April 18, 2019

Instructor
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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 a computer program. Students should not expect that test questions will duplicate homework and quiz problems; rather, tests in the course consist of multiple-choice questions regarding concepts and/or portions of problems taken from the homework or quizzes.

Preparing for Tests
There are four principal 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 from the course instructor.

2. Communicating with the Instructor
   The course instructor has office hours every Monday from 10 AM until 12 noon in room 459X Campbell Hall. An appointment is suggested. Other visits with the instructor can be scheduled as required. When doing homework problems students can click on “Ask My Instructor” to get help. Also, there are additional learning aids associated with each problem under the heading “Question Help.”

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. In your left-hand toolbar you will find additional learning aids under “Tools for Success” and under “Multimedia Library.” Students accustomed to a lecture environment may find the “Videos” and “Section Videos” useful.
4. **Working out the Practice Tests**

   Each of the three major in-term tests in the course has an associated Practice Test. Each Practice Test can be taken two times and the higher grade obtained will be used to award test bonus points to the student. A score of 90% on a Practice Test earns the student 9 bonus points. There are 30 bonus points available in all.

**Skill Sets**

   Upon successful completion of the course, a student ideally 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

**To Access your Course**

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

   A MyMathLab Plus account will be established for you before the semester begins. You will need to activate the account, as follows:

   - Log-on to BlazerNet 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.*

   *Once “Pay Later” 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 to be announced later

Office Hours By appointment in HHB 202A.

Reading the textbook is required. The 12th edition is required.
It comes in a loose-leaf format, shrink-wrapped with a MyMathLab PLUS access code. The access code is required.
In the UAB bookstore or other near-campus textbook outlets you will find it under MA180 Elementary Statistics, MA418 Elementary Statistics, or MA480 Elementary Statistics. These are all the same.
**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.
**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 from the publisher at MyMathLab PLUS. (Be sure it is a PLUS access code.)
**Students from fall semester 2018:** If you have previously purchased an access code for this Statistics course, it may be possible to use it again. Let your instructor know to see if you qualify.
**The least expensive option is usually the loose-leaf book shrink-wrapped with the access code.**

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 find this card handy when working problems in the course. It can also be found in MyMathLabPlus under the Formula Sheet tab.

Open Book All work in the course; homework, quizzes and tests can be done with reference to the formula fold-out card. However, you must do your own work. The homework, quizzes, and tests are open-book.

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, quizzes and tests. However, students may also use their personal hand-held calculators if they wish. If you want to use a hand-held calculator, it is recommended that you get a TI-83 Plus or TI-84 Plus. At the back of each chapter in the text students will find directions for calculator use and StatCrunch use.
Make-ups
There are no make-ups for missed homework, quiz and test assignments. This is because they can and **should be completed ahead of time.**

**WARNING:** Most students wait until deadline dates to start working on their assignments. This is bad practice and invariably leads to missed points in the course.

Tests
There will be three one-hour tests and a ninety-minute final exam. The final exam will be comprehensive. The tests and final exam can all be completed with reference to the tear-out, fold-out card taken out of the textbook. The textbook itself can also be used. You can also use StatCrunch and/or your hand-held calculator during testing.

Homework
The homework exercises and quizzes are done using a computer program named MyMathLab PLUS. 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 Laboratory 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. Homework problems can be worked any number of times until correct.

Browser
The Firefox or Chrome browsers are recommended for the course since they are more reliable. If issues arise, please clear the browsing history and cache.

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. There are two types of quizzes. Homework Quizzes have a 30-minute time limit. Reading Quizzes are not time-limited. All quizzes 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. If your quiz is interrupted for any reason, email the instructor as soon as possible.

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 test deadline dates,** so plan to complete them ahead of schedule. Homework assignments are due by 11:00 PM on the date scheduled. Quiz assignments are due by 11:59 PM. Test assignments are due by 8:00 PM.
Class Discussions Each week the students in the class will be assigned to a three-or-four person discussion group. This is similar to a chat-room format where students can interact with one another to deepen their understanding of the course material. Students earn between zero and five points each week based on the thoughtfulness and quality of their participation in these online discussions. Access to the discussion groups is through your UAB CANVAS account.

Course Grade based on points earned (not on a percentage)

<table>
<thead>
<tr>
<th>Category</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Discussion points (10 @ 5 points each)</td>
<td>50</td>
</tr>
<tr>
<td>Homework (8 assignments @ 20 points each)</td>
<td>160</td>
</tr>
<tr>
<td>Quizzes (8 quizzes @ 20 points each)</td>
<td>160</td>
</tr>
<tr>
<td>Reading Quizzes (10 quizzes at 8 points each)</td>
<td>80</td>
</tr>
<tr>
<td>Three tests @ 100 points each</td>
<td>300</td>
</tr>
<tr>
<td>Final exam</td>
<td>250</td>
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<tr>
<td>Total possible points</td>
<td>1000</td>
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</tbody>
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Extra Bonus points available (from Practice Tests) 30

Letter Grade based on points earned

- 880 to 1000 A
- 750 to 879 B
- 620 to 749 C
- 500 to 619 D
- Below 500 F

Note: 749 points is a C, not a B.

Extra Credit There are three extra credit assignments in this course for a total of 30 possible bonus points. Note that the course has built-in scaling; for example, 620 points is a C, rather than 700 points for a C.

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 Resources then Check Grades. You will need to enter your BlazerID and password. You can also click on “Math Dept Gradebook” in the left-hand toolbar of your MyMathLab Plus entry screen.

Grade Review Students are asked to review all grades for accuracy immediately after they are posted. The grades for work completed one day will not be posted until the morning of the following day.

Email Information about the course (changes to assignments, reminders, schedules, etc.) will be distributed to students using their BlazerID email address. 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, or call 934-3540.
Withdrawal  The last day to withdraw from this course with a grade of “W” is March 1, 2019. The permission of the instructor is not required.

Disability Support Services (DSS)
UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty and staff. If you are registered with Disability Support Services, please contact DSS to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call 934-4205 or visit http://www.uab.edu/dss or Hill Student Center Suite 409.

Title IX  The University of Alabama at Birmingham is committed to providing an environment that is free from sexual misconduct, which includes gender-based assault, harassment, exploitation, dating and domestic violence, stalking, as well as discrimination based on sex, sexual orientation, gender identity, and gender expression. If you have experienced any of the aforementioned conduct we encourage you to report the incident. UAB provides several avenues for reporting. For more information about Title IX, policy, reporting, protections, resources and supports, please visit http://www.uab.edu/titleix for UAB’s Title IX Policy, UAB’s Equal Opportunity, Anti-Harassment Policy and Duty to Report and Non-Retaliation Policy. Student Support