Please note that this syllabus supersedes any and all previously posted or published Syllabi.

Course Coordinator: Laura Shick, ljshick@g.clemson.edu  864-656-5217 (no voice mail)

Course Description:
Introductory probability and statistics for business students, particularly those who will take MGT 3100. Topics include descriptive statistics, probability, expectations, binomial, normal, sampling distributions, one sample estimation and testing, simple linear regression.

Perquisites:
MATH 1060 or 2070 or 2100.

Learning Outcomes:
Students can….
1. Identify and distinguish between types of variables, and know which types of variables are required for statistical techniques
2. Explain and apply measures of central tendency, spread, and relative standing and how these different measures relate to each other in various distribution patterns
3. Apply rules of probability, and extend those principles to discrete and continuous probability distributions
4. Explain and apply the concept of sampling distributions and their role in developing confidence intervals and use in hypothesis testing, correctly utilizing the “t” or “z” distribution
5. Identify the correct statistical test to be used for hypothesis testing on one sample scenarios for mean, proportion, and standard deviation
6. Clearly interpret the results of statistical analysis in context of the original research question
7. Correctly and appropriately use correlation and linear regression techniques, including inference on the models

The above outcomes are evidenced by responses to free response questions on homework, activities and exams.

General Education Requirement:
STAT 3090 satisfies the General Education requirement for Mathematics.

You may demonstrate mathematical literacy through solving problems, communicating concepts, reasoning mathematically, and applying mathematical or statistical methods, using multiple representations where applicable.

Copies of the more challenging problems from homework and tests from this course may be appropriate to submit as evidence of this competency. In particular, the following examples of evidence of math competency might be included:

- Demonstrate knowledge of simulations
- Use statistical models to calculate probabilities of events
- Perform full analysis of a Hypothesis Test
- Use linear regression techniques to determine the relationship between two quantitative variables

In this course there will be an opportunity (in some sections) to prepare a written exercise supportive of the general education math competency. In those sections we will help students upload artifacts to assessment collection system. This will count as a “section” grade for that day for those sections. Students will be responsible for creating a digital copy of the questions.
Required Textbook:
**Discovering Business Statistics** by Nottingham and Hawkes, REQUIRED (ebook or textcopy)

Technology:
- Hawkes Learning System - Online Homework - REQUIRED
- Microsoft EXCEL – REQUIRED
- Minitab (Version 7 or Minitab Express) - REQUIRED

Calculator:
A scientific calculator is required – we prefer a TI 83/84 model. Calculators will be permitted on unit tests and the final exam.

Websites:
- [https://mthsc.clemson.edu/ug_course_pages/STAT3090](https://mthsc.clemson.edu/ug_course_pages/STAT3090) -- General STAT 3090 site which includes this syllabus, a daily schedule, unit instructional objectives, announcements, and other useful information.
- [http://bb.clemson.edu](http://bb.clemson.edu) -- Follow links to your section of STAT 3090 in Blackboard.

You are responsible for checking this website and your university e-mail account (userid@clemson.edu) on a regular basis for announcements and class materials.

Academic Integrity:

**Course Regulations:** [http://www.registrar.clemson.edu/html/catalog.htm](http://www.registrar.clemson.edu/html/catalog.htm)
Please read the information concerning Undergraduate Course Regulations, Academic Integrity, Class Attendance, Midterm Grades, Final Exams, and Posting of Grades found in the *Undergraduate Announcements*.

"As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a high seminary of learning. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating or stealing in any form."

Note that work from other past or current courses may not be used to meet the requirements for this course. Also note that giving access to an academic website that requires your password (for example Web Assign or Blackboard) violates the code of student conduct computer use policy.

**Grading:**
- 45% - 3 Tests (15% per exam)
- 25% - Final Exam
- 10% - On-Line Hawkes Homework
- 10% - Chapter and Unit Quizzes
- 10% - Section Activities

**To earn a passing grade for the course, a student must have:**
(a) A final exam score of 60 or higher, or
(b) A weighted test and final exam average of 60 or higher where the weighted average is computed as

\[
W_{TAVG} = \frac{0.15(T1 + T2 + T3 + FE - \min(T1, T2, T3, FE)) + 0.25FE}{.70}
\]
Where \( T1, T2, T3, \) and \( FE \) are score on Test 1-3 and the Final Exam

**Note:** This formula has the effect of replacing the lowest test score with the final exam score if this benefits the student.

If neither of the conditions (a) and (b) above are met, the final course grade is F and following computation of course average is irrelevant.

If either of the conditions (a) and (b) above are met, the final numerical average \( (CRSAVG) \) is computed as:

\[
CRSAVG = 0.10(Quiz) + 0.10(HLS) + 0.10(Section Projects) + 0.15(T1+T2+T3+FE-min(T1,T2,T3,FE))+0.25FE
\]

**Note:** Based on these calculations meeting either condition (a) or (b) does not necessarily mean a passing grade in the course.

Final grades will be recorded as follows:

- 90 – 100 A
- 80 – 89 B
- 70 – 79 C
- 60 – 69 D
- Below 60 F

**Unit Tests:**

All tests must be taken on the dates given in the Course Schedule. You will be given 90 minutes for each test, tables and formula sheets will be provided. The unit tests and final will be composed of both multiple choice and free response questions. The designated time for STAT 3090 tests is Mondays at 5:30pm – 7:00pm. If you miss a test your final exam will be used as your exam score (for only one exam). Students are required to take unit exams and final with their section.

Student may use calculators on the unit tests and the final. Students will not be permitted to use laptop computers on the unit Tests or the Final Exam. The use of a textbook and/or notes is prohibited on all STAT 3090 unit tests and Final Exam. Formula sheets and scantrons will be provided to students for unit tests and the final exam. Cell phones will not be permitted during testing.

**Students will need their new XID number for use on scantrons for unit tests and final exam.**

**Other Class Requirements:** consist of Hawkes Learning Assignments, Chapter and Unit Quizzes and Section Activities. More detail on these assignments is below:

**On-Line Hawkes Learning System: (0.10%)**

Each student will work homework online through the Hawkes Learning System. HLS installation help is available. See posted instruction on BB for installing HLS.

HLS contains a calendar which will show you when each homework assignment is due. HLS also contains an online version of your text, as well as practice tests for each chapter. Take the time to learn to use the system, paying attention to the amount of study material which is available for you. When working homework, be sure to follow instructions exactly for entering answers. Be very careful to note the DUE date for each HW assignment.

You might find it very helpful to use the LEARN, and PRACTICE pieces of each lesson in preparation for the next class, and then for review. Then do your HW for credit. REMEMBER – you are to come to class prepared to discuss the day’s topic: this is one way to prepare.

**Chapter and Unit Quizzes: (0.10%)**

On-line quizzes will be given at the end of most Chapters, and at the end of each Unit. For the most part, questions will be drawn from the Hawkes HW problems, but not always. The on-line quizzes will be timed and
have no Help Resources. Other paper quizzes may be given. There is no make-up for these quizzes, either online or paper ones. These quizzes should prove very helpful in your preparation for the Exams!

**Section Activities: (0.10%)**
Section Activities may include in-class activities, quizzes, additional homework problems, projects, reading quizzes, participation grade and/or additional worksheets. Please see your instructor’s personal syllabus for further details.

**Final Exam:**
The Final Exam is comprehensive. The Final Exam score may replace the lowest unit test score, if it helps. (Note: if your Final Exam replaces your lowest test grade the final will then count for 40% of your total grade)

**Attendance:**
You are expected to be regular and punctual in your class attendance. If you must miss class YOU are responsible for the notes, assignments, and announcements you missed. Students must provide your instructor with proper documentation for university sanctioned absences. If the instructor does not arrive in the classroom within 15 minutes after the scheduled start time, class is dismissed for the day.

**Inclement Weather:**
University closings will be posted on the Clemson website. You will also receive a text message. However, IF snow or ice are on the ground, and you have not yet heard from the University, expect an email from your instructor. It may not be possible for (s)he to get to campus. Do not jeopardize your safety.

Any assignments due at the time of a class cancellation due to inclement weather will be due at the next class meeting unless contacted by the instructor. Any extension or postponement of assignments or exams must be granted by the instructor via email or Blackboard within 24 hours of the weather related cancellation. In the event of the university closing during a scheduled exam, your instructor will notify you as to the date of rescheduled exam.

**Special Accommodations:**
Students with disabilities who need accommodations should make an appointment with the Director of Disability Services, to discuss specific needs within the first month of classes. Students should present a Faculty Accommodation Letter from Student Disability Services when they meet with instructors. Student Disability Services is located in Suite 239 Academic Success Building (656-6848; sds-L@clemson.edu). Please be aware that accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester.

If you have a letter stating specific testing accommodations to which you are entitled, be sure your instructor has a copy of the faculty accommodation letter and a test proctoring form (if needed) at least a week before the first exams. See Student Disability Services – Student Guide: [http://www.clemson.edu/sds/student_guide.html](http://www.clemson.edu/sds/student_guide.html)

For STAT 3090 there will be a special accommodation room available for students requiring 1.5 or double time on their tests. The tests in these rooms will be administered on the same date and approximate time as the general tests.

**Tutoring:**
Tutoring is available for your class for free through the Academic Success Center! Tutoring should be used to discuss course materials and ask questions but not as a replacement for class or office hours. Drop-in sessions will be available weekly in the Academic Success Center Building! Make sure to come to all tutoring sessions fully prepared with your book, notes, and other class materials. For details on policies, please see the ASC website at [www.clemson.edu/asc](http://www.clemson.edu/asc).
Title IX (Sexual Harassment Policy):
Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admission and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at http://www.clemson.edu/campus-life/campusservices/access/title-ix/. Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He is also the Director of Access and Equity. His office is located at 111 Holtzendorf Hall, 864.656.3181 (voice) or 864.565.0899 (TDD).

Success in the Course:
In order to be successful in this course students must be dedicated to the course work, studying is critical for a student to master the learning objectives of this course. Students are expected to aggressively participate in their own learning by reading the book, practicing the course skill sets (found on the course website) and seeking help in a timely manner when necessary.

Course Coordinator
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