

Time: TTh 5:35 – 6:50 pm
Synonym: 28723
Section: 002
Room: NRG4 4207

Office: NRG PB4
Hours: TTh 5:00 – 5:30 pm
And by appointment
Email: ghenness@austincc.edu
Phone: (512) 223-8132

COURSE DESCRIPTION AND OBJECTIVE

This statistics course is designed for business majors. Topics include organization of measurements, determining measures of central tendency, discrete distributions, continuous distributions, confidence intervals, variability, counting, probability, statistical inference, hypothesis testing (large and small samples), simple and multiple regression and correlational analysis, and nonparametric methods.

The objective of this course is to provide students with a basic understanding of statistical procedures, techniques and applications as used in business.

TEXT

Required:

Statistical Techniques in Business & Economics. Lind, Douglas, William Marchal & Samuel Wathen. 13th Edition (2008). Boston, MA: McGraw-Hill Irwin.

Prerequisite: [MATH 1324](#), [MATH 1314](#), or [Departmental Approval](#)

CLASS FORMAT

Much of the class will be devoted to providing examples and demonstrating problem solving techniques. The class will also include lectures and discussion, which will highlight and expand upon the text. Class participation will require knowledge of assigned readings.

COURSE RATIONALE

Statistics are necessary to make informed business decisions, therefore the understanding of various techniques is necessary for success in today's business world.

INSTRUCTIONAL METHODOLOGY

Students will learn through a combination of lecture, discussion, and small group exercises. Problem solving outside of class will be vital to successful completion of this class.

ATTENDANCE

The ACC Business Division's policy is that unexcused absences should not exceed 10% of the total number of class meetings. Attendance at all class meetings is required and necessary in order to do well in this class. The instructor may drop students missing more than 10% of the scheduled classes.

STUDENT OUTCOMES

In today's global business and economic environment, vast amounts of statistical information are available. The most successful managers and decision makers are the ones who can understand the information and use it effectively. A formal course in statistics is essential. Statistics is the art and science of collecting, analyzing, interpreting, and presenting data.

The overall objective in this course is to provide students with a sound introduction to the many applications of descriptive and inferential statistics for decision-making. On completion of the course, the student should have an understanding of concepts such as graphing, probability, sampling, interval estimation, hypothesis testing, regression analysis, statistical process control, and ethical issues in statistics.

OFFICE HOURS

Students are encouraged to meet with me for assistance whenever needed. Refer to my office hours listed above. If these are not convenient for you, I will be happy to schedule appointments at other times. Many resources are available to help you succeed in this course – you need only ask for help.

COURSE ORGANIZATION & GRADING

We will divide the material discussed in the textbook into four "Sections" as indicated by the course calendar and summarized below. There will be a quiz at the *start* of each chapter discussion and an exam *at the end* of each Section. The dates appear on the course calendar. You will be evaluated on the basis of exams, problem sets, and quizzes. Your course grade will be calculated as the simple average of your best four out of the following five scores:

Exam 1	Chapters 1 – 4
Exam 2	Chapters 5 – 7
Exam 3	Chapters 8 – 10
Exam 4	Chapters 12, 13, 19
Problem Sets & Quizzes	1 problem set & 1 quiz each chapter

Exams

Exams are comprehensive tests of your mastery of each chapter's content. Exam problems can be drawn from any material in the chapter not explicitly excluded in this syllabus, below. Exams will be in-class and closed book/notes.

It is your responsibility to bring a calculator to the exam.

Make up exams WILL NOT be given – use your option to drop one (1) grade! If you have more than one schedule conflict you should consider taking this course when you have the time necessary to devote to it. Leaving the classroom for any reason is an indication that you are through with the exam. Doing so will result in immediate termination of the examination, and the exam will be graded as-is. You may leave as soon as you have handed in your exam.

If your cell phone rings during an exam it disrupts the concentration of your classmates and signals to me that you are through with the exam and ready to socialize – therefore your exam will be collected and graded as-is.

Problem Sets & Quizzes

You will earn points for problem sets and in-class quizzes. These points will accumulate in a combined “bucket” of points. The score for this bucket of points is capped at 100 even though 143 points are available.

Problem sets

Assignments

The problem set for each chapter will be posted on Blackboard on or about the first day that we cover that chapter in class.

Problem sets must be turned in on loose leaf, graph or tablet paper – *NOT torn from a spiral notebook*. Your name must appear in the top right-hand corner of each page submitted. If your set consists of multiple pages, they must be stapled. The top right-hand corner of the FIRST page must also include the course number and chapter number.

For example:

Joe Austin
BUSI 2371
Chapter 1 Problem Set

Problem sets not conforming to these standards will receive a score of 0 points.

Collection

In most cases, problem sets will be collected at the beginning of class on the due date (shown on the calendar below). For the last chapter before an exam, the problem set will be due at noon on the day before the exam. In these cases, the assignment should be left with the mail room or emailed to me.

If you are not going to be in class when a problem set is due, you may leave your assignment with the mail room. NB: Leave such assignments in my inbox at *YOUR* risk. **Do NOT leave problem sets in PB4.**

Answer Keys

Answer keys will be posted on Blackboard after the assignments have been collected. Therefore, **late problem sets will not be accepted for any reason.**

Points

Each problem set will be worth 8 points. With 13 chapters being covered, there are 104 points available via problem sets.

Team Grading

In order to encourage collaboration among students, problem sets can be submitted individually or in teams. If a team submits a problem set, it is expected that students will solve the assigned problems individually, compare their results, and prepare a joint answer that exhibits clear steps to reach the correct answer. Because they have more opportunity to catch errors, error deductions on team assignments will be calculated as follows:

$$\text{Team Point Deduction} = \text{Basic Point Deduction} \times (\# \text{ of team members} / 2)$$

Note that this means a team of 2 receives NO penalty for submitting their work as a team. A team of 6, however, would have their point deduction multiplied by 3. In other words, if a team of 6 submits a problem set with 3 points of errors, each student will receive:

$$10 - (3 \times 3) = 1 \text{ point}$$

Team problem set submissions must follow the format described above, with the list of team members appearing in the upper-right corner of the first page.

Quizzes

Reading each chapter and attempting problems *prior to* in-class discussion is vital to creating an exciting and robust learning environment. You are expected to read each chapter before the chapter is discussed in class. Quizzes are intended to measure your basic familiarity with each chapter's content, at a level consistent with merely have read the material. Their format will be either multiple choice or "fill in the blank."

Points

Each quiz will be worth 3 points. With 13 chapters being covered, there are 39 points available via chapter quizzes. **Makeup quizzes will NOT be given.**

COURSE POLICIES

Schedule / Calendar Changes

The instructor reserves the right to adjust the course calendar. Any changes will be announced in class and on Blackboard. Revised course calendars will be posted on Blackboard.

Withdrawals

Should you decide to withdraw from this class for any reason, it is YOUR responsibility to do so by the established deadline.

Class Preparation

Each class hour will require at least three preparation hours. Significant responsibility is placed on you to properly prepare for class. You are responsible for all assigned readings, problems and materials, even if we do not cover or review the material in class. Read the assigned chapters before attending class and be prepared for class discussions. Attempt the exercises on your own. Bring your text, homework papers and a working calculator to all classes.

Computer Work

We will use Excel as a part of our course work. The computer assignments are a course requirement – you will not receive credit for the course unless the computer work is completed. Some exam questions will be worked on the computer. Therefore, you will need to practice outside of class to become proficient.

Calculators

The use of a calculator is strongly encouraged. Use them during class, during exams, and when completing homework. Any basic hand-held calculator will do, as long as it has a square root function – just be sure you know how to use it.

Blackboard

The course syllabus, homework, homework solutions, and grades are all available on Blackboard.

Tutoring

Free tutoring is available – call 223-3367.

Scholastic Dishonesty

Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research or self-expression. Academic work is defined as, but not limited to tests, quizzes, whether taken electronically or on paper, projects, either individual or group; classroom presentations, and homework.

Student Discipline Statement

Classroom behavior should support and enhance learning. Behavior that disrupts the learning process will be dealt with appropriately, which may include having the student leave class for the rest of that day. In serious cases, disruptive behavior may lead to a student being withdrawn from the class. ACC's policy on student discipline can be found in the Student Handbook.

Students with Disabilities

Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office for Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do so three weeks before the start of the semester.

STATEMENT ON ACADEMIC FREEDOM

Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgment about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for a diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks.

SCANS

The Secretary's Commission on Achieving Necessary Workplace Skills (SCANS) is a project of the Secretary of Education and Secretary of Labor. The consensus is that students must develop and cultivate workplace skills as part of their college courses. The SCANS competencies (workplace skills) that will be assessed during this course include:

Responsibility

Exerts a high level of effort and perseverance toward goal attainment; works hard to become excellent at doing tasks by setting high standards, paying attention to details, and displaying a high level of concentration even when assigned an unpleasant task; and displays high standards of attendance, punctuality, enthusiasm, vitality and optimism in approaching and completing tasks.

Assessments

Attends class regularly. Arrives on time. Completes homework on a timely basis. Participates positively in class group activity. Prepares for class by reading material and attempting exercises ahead of lecture presentation.

Apply Technology

Understands the overall intent and the proper procedures for using a statistical portion of a spreadsheet program. Demonstrates competence in how to use program to solve text assignments. Accurately interprets output.

Assessments

Learns how to use Excel for text assignments. Completes assignments using Excel.

Communicate Information

Selects and analyzes information and communicates the results to others using oral, written, graphic, pictorial or multimedia methods. Competently performing the tasks of communications and interpreting information to others includes determining information to be communicated; identifying the best methods to present information (e.g., overheads, handouts); if necessary, converting to desired format and conveying information to others through a variety of means including oral presentation, written communication, etc.

Assessments

Each student is strongly encouraged to participate in class. In any classroom situation that includes discussions and critical thinking, there are bound to be many differing viewpoints. These differences enhance the learning experience and create an atmosphere where students and instructors alike will be encouraged to think and learn. On sensitive and volatile topics, students may sometimes disagree not only with each other but also with the instructor. It is expected that faculty and students will respect the views of others when expressed in classroom discussions.

COURSE CALENDAR

DATE	CH	QUIZ	PROBLEM SET DUE	CONTENT
1/20	1			Course Overview / Introductions
1/22	1	1	1/27	What is Statistics?
1/27	2	2	1/29	Describing Data: Frequency ...
1/29	3	3	2/3	Describing Data: Numerical Measures
2/3	4	4	2/5	Describing Data: Displaying ...
2/5				Review Chapters 1 – 4
2/10				EXAM #1 (Chapters 1 – 4)
2/12	5		2/24	A Survey of Probability Concepts
2/17	5	5		
2/19	5			
2/24	6	6	3/3	Discrete Probability Distributions
2/26	6			
3/3	7	7	3/10	Continuous Probability Distributions
3/5	7			
3/10				Review Chapters 5 – 7
3/12				EXAM #2 (CHAPTERS 5 – 7)
3/17	3/19			SPRING BREAK
3/24	8	8		Sampling Methods and the Central Limit Theorem
3/26	8		3/31	
3/31	9	9		Estimation and Confidence Intervals
4/2	9		4/7	
4/7	10	10		One-Sample Tests of Hypothesis
4/9	10		4/10 (noon)	
4/14				EXAM #3 (Chapters 8 – 10)
4/16	12		4/28	Analysis of Variance
4/21	12	12		
4/23	12			
4/28	13	13	5/5	Linear Regression and Correlation Analysis
4/30	13			
5/5	19	19	5/12	Statistical Process Control and Quality Management
5/7	19			
5/12				Review Chapters 12, 13, 19
5/14				EXAM #4 (Chapters 12, 13, 19)