

**BZAN 6320**  
**Foundations of Business Analytics**  
**Fall 2016 (6:00-9:00pm Monday)**

**Instructor:** Dr. Archer McWhorter, Jr.  
Room 270B Melcher Hall  
Voice: 713-743-4719 (UH) or 281-497-4306 (Home)  
E-Mail: amcwhorter@uh.edu  
Office Hours: 4:00-6:00 MW, or by appointment

**TA/Grader:** To be announced

**Texts:** *Statistics for Business and Economics* by McClave, Benson, and Sincich (12th Edition).

**Prerequisites:** Graduate standing, a graduate-level calculus course, a good quantitative score on the GMAT or GRE, and approval of a Bauer graduate adviser

**Homework:** This course will average about one homework assignment per week. Several of the assignments will require use of Excel. Most of the assignments requiring computer work will be taken up and graded, but the non-computer assignments will *not* be. For assignments that must be handed in, late submission is permitted, but there will be a 10-point penalty per class meeting that the assignment is late. Complete solutions to homework assignments will be made available.

**Exams:** There will be a midterm exam covering the first half of the course and a final exam covering the second half. Tentative dates for these exams are given in the next section.

**Grading:** The weights and tentative dates of the homework assignments and exams are given below:

	<u>Weight</u>	<u>Tentative Date</u>
Computer Work	20	Various
Midterm Exam	40	October 10
Final Exam	40	December 12 (Monday, 5-8pm)

**Makeup Exams:** Makeup exams will be offered only under the most extenuating circumstances. If you are unable to make it to an exam, you must contact me or my secretary before the scheduled time for the exam or take a zero on that exam. A makeup exam may be harder than the scheduled exam.

**Drop Policy:** Wednesday, September 7, is officially the last day to drop a course without receiving a grade. Monday, October 28 is officially the last day to drop a course or withdraw.

**Academic Honesty:**

The University of Houston Academic Honesty Policy is strictly enforced by the C. T. Bauer College of Business. No violations of this policy will be tolerated in this course. A discussion of the policy is included in the University of Houston Student Handbook, and students are expected to be familiar with this policy (see <http://www.uh.edu/dos/hdbk/acad/achonpol.html>).

**Accommodations for Students with Disabilities:**

The C. T. Bauer College of Business would like to help students who have disabilities achieve their highest potential. To this end, in order to receive academic accommodations, students must register with the Center for Students with Disabilities (CSD), telephone 713-743-5400, and present approved accommodation documentation to their instructors in a timely manner.

**Course Calendar - BZAN 6320 (Fall 2016, 6:00-9:00pm Monday)**

<u>Week</u>	<u>Date</u>	<u>Lecture Material</u>
1	Aug. 22	Basic tools for summarizing data Graphics Numerical summary measures Basic probability concepts
2	Aug. 19	Random variables and probability distributions Expected values Special probability distributions Binomial
3	Sep. 5	<i>Labor Day (no class)</i>
4	Sep. 12	More special distributions Poisson Normal Functions of random variables Random sampling
5	Sep. 19	Statistics and sampling distributions Means Proportions Basics of statistical inference Point estimation Interval estimation t distribution
6	Sep. 26	More statistical inference Hypothesis testing - basic concepts Examples p-values
7	Oct. 3	Two-sample problems Independent samples Paired differences Simulation modeling Basic concepts Native Excel vs Analysis Toolpak Examples
8	Oct. 10	<b>Midterm Exam</b>

<u>Week</u>	<u>Date</u>	<u>Lecture Material</u>
9	Oct. 17	Begin simple linear regression Purpose and assumptions Estimation and hypothesis testing Quality of model fit Computer output
10	Oct. 24	Continue simple regression Interpretation Confidence and prediction intervals Introduction to multiple regression Assumptions Inference Interpretation
11	Oct. 31	Subset selection Methods Example Partial correlations Regression model-building Purpose, examples Variable transformations Dummy variables
12	Nov. 7	More model-building Regression diagnostics Analysis of count data
13	Nov. 14	Sensitivity analysis using data tables Introduction to Excel's Solver add-in
14	Nov. 21	Optimization problems Unconstrained Constrained Examples using Solver
15	Nov. 28	More optimization examples Forecasting models Moving average Exponential smoothing Trend and seasonal regression models
	Dec. 12	<b>Final Exam</b> (Monday, 5-8pm)