

BZAN 6310
Quantitative Analysis for Business Decisions
Spring 2016 (Tuesday, 6-9pm)

Instructor: Dr. Archer McWhorter, Jr.
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Office Hours: 4:00-6:00 MTuW, or by appointment

TA/Grader: To be announced

Texts: *Microsoft Excel 2013: Data Analysis and Business Modeling* by Wayne L. Winston (2014, ISBN: 978-0-7356-6913-0).
Statistics for Business and Economics by McClave, Benson, and Sincich (current edition is number 12, but that edition is *not* necessary; most any old edition should be fine)

Prerequisite: Graduate standing

Homework: This course will average about one homework assignment per week. Most of the assignments will require use of Excel. Some, but not all, of these assignments will be taken up and graded. 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 two exams during the semester and a three-hour final exam. The final exam will be comprehensive. 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>
Homeworks	15	Various
Exam 1	25	February 16
Exam 2	25	March 29
Final Exam	35	May 10 (Tuesday, 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, February 3, is officially the last day to drop a course without receiving a grade. Anyone who wishes to do so may drop this course after that date but no later than 6:00pm on Tuesday, March 1, and receive an automatic W; note that the first exam will be given February 16 and returned graded on February 23. Anyone who drops after March 1 will receive a W only if his/her average at that point is at least 40. Friday, April 1, 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 6310 (Spring 2016, Tuesday, 6-9pm)

<u>Week</u>	<u>Date</u>	<u>Lecture Material</u>
1	Jan. 19	Overview of course Introduction to Excel Keyboard shortcuts Naming and formatting cells Formulas and Functions Tables and slicers
2	Jan. 26	Basic tools for summarizing data Graphics Numerical summary measures Using Excel to summarize data Introduction to probability
3	Feb. 2	More probability basics Two-way tables Examples Random variables and probability distributions Special probability distributions Binomial
4	Feb. 9	More special distributions Poisson Normal Random sampling Sampling distributions
5	Feb. 16	Exam 1
6	Feb. 23	Continue sampling distributions Means Proportions Statistical inference - Estimation Point estimates Interval estimates
7	Mar. 1	Statistical inference - Hypothesis testing One-sample problems (means, proportions) p-values Introduction to regression analysis
8	Mar. 8	Continue simple linear regression Estimation Hypothesis testing Interpretation and application Examples

<u>Week</u>	<u>Date</u>	<u>Lecture Material</u>
9	Mar. 15	<i>Spring Break</i>
10	Mar. 22	Two-sample problems Means Proportions Independent samples vs. matched pairs
11	Mar 29	Exam 2
12	Apr. 5	Multiple regression Estimation and hypothesis testing Interpretation and application Regression model-building Purpose and examples Variable transformations and dummy variables Examples
13	Apr. 12	Analysis of count data Sensitivity analysis using data tables Computer Simulation Modeling Basic ideas Using native Excel Using the Analysis Toolpak Examples
14	Apr. 19	Optimization problems Unconstrained Constrained Examples using Excel's Solver add-in
15	Apr. 26	More optimization examples Time Series Forecasting Moving averages Exponential smoothing Classical decomposition with regression Winters's method (smoothing)
	May 10	Final Exam (Tue, 5-8pm)