BZAN 6310
Quantitative Analysis for Business Decisions
Spring 2018 (6:00-9:00pm Tuesday)

Instructor: Dr. Archer McWhorter, Jr.
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Office Hours: 4:00-6:00 MTW 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 13, but do *not* buy that edition; a used copy of edition 12 is ideal, but a used copy of edition 11 or edition 10 will also work).

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:

	Weight	Tentative Date
Homeworks	15	Various
Exam 1	25	February 20
Exam 2	25	April 10
Final Exam	35	May 8 (6-9pm)

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 (LaToya Brannon, 713-743-4723) 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, January 31, is officially the last day to drop a course without receiving a grade. Anyone who wishes to do so may drop this course after January 31 but no later than 6:00pm Tuesday, March 6, and receive an automatic W; note that the first exam will be given February 20 and returned graded on February 27. Anyone who drops after March 6 will receive a W only if his/her average at that point is at least 40. Tuesday, April 3, 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 2018 - Tuesday)

Week	Date	Lecture Material
1	Jan. 16	Overview of course Introduction to Excel Keyboard shortcuts Naming and formatting cells Formulas and functions
2	Jan. 23	More Excel basics Addressing Tables and slicers Random variables and probability distributions Special probability distributions Binomial
3	Jan. 30	Continue special distributions Normal Computer Simulation Modeling Basic concept Native Excel vs. Analysis Toolpak
4	Feb. 6	Simulation examples Introduction to Excel's Solver add-in Preliminary Solver examples
5	Feb. 13	Constrained linear optimization problems Solution methods Examples using Solver Sensitivity analysis using data tables
6	Feb. 20	**Exam 1**
7	Feb. 27	Basic tools for summarizing data Graphics Numerical summary measures Using Excel to summarize data Introduction to probability Two-way tables Examples
8	Mar. 6	Random sampling and sampling distributions Means and proportions Statistical inference - Estimation Point estimates, interval estimates, t distribution
9	Mar. 13	*Spring Break*

Week	Date	Lecture Material
10	Mar. 20	Statistical inference - Hypothesis testing Basic concepts and terminology Examples p-values
11	Mar. 27	Introduction to regression analysis Simple linear regression Estimation Hypothesis testing Interpretation and application
12	Apr. 3	Continue simple linear regression Examples Confidence and prediction intervals Two-sample problems Means Proportions Independent samples vs. matched pairs
13	Apr. 10	**Exam 2**
14	Apr. 17	Multiple regression Estimation and hypothesis testing Interpretation and application Regression model-building Purpose and examples Variable transformations and dummy variables Model-building - Extended example
15	Apr. 24	Analysis of count data Time Series Forecasting Moving averages Exponential smoothing Classical decomposition with regression Course review
	May 8	**Final Exam** (Tuesday, 6-9pm)