MKT460: Analysis & Information
Fall 2018

“This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.”

Required for marketing students, this course provides a solid basis for evidence-based decision making and problem solving, essential in marketing practice as in life. The class material focuses on the important aspects of data and it’s analysis that provide confident, unbiased reporting of the truth for descriptive, explanatory and predictive purposes. The class is intended to further the following goals for students within the structure of the Marketing Department at UT:

> Understand why marketing problems require truthful, relevant information and how this information is properly obtained and conveyed.
> Develop practical skill in capturing broad concepts in measurable ways, yielding valid, reliable data that reveals insight for marketers.

> Learn how to set up a research design, obtain a representative sample and collect unbiased data.

> Gain experience working in collaborative teams.

> Gain hands-on experience using world-class statistical software and interpreting findings in practical terms.

> Become a better consumer of information and analysis products & services

Prerequisites for the class: business major or credits for MKT 337 and STA 309.

1 Instructor: John Davis is a practicing market researcher whose career focuses on consumer behavior in the marketplace. He enjoys a deep hands-on experience in his field, developed over decades of solving business problems and finding opportunities for consumer-centric businesses. His 'corporate period' found him working for leaders in business (American Express, Coca-Cola, Proctor & Gamble, Nielsen Research, Ford Motors, Allstate Research & Planning Center, RJR Tobacco, Bank of America among them), leading to his 'entrepreneurial period', where he started, operated and sold two applied market-research businesses. He's taught research related courses at the Universities of Texas, Colorado and California, as well as in State Universities of New York and Arizona, and he is published in peer review journals of Direct Marketing and Advertising Research. Maintaining his practice today, he brings his experience to UT to increase the competence level of research expertise he finds in his clients. Hoping to ensure that graduates of McCombs Business School have a practical and professional advantage in their pursuit of excellence in work and life, he passes his passion for the righteous search for Truth on to students.

He can be contacted as follows:
email: john.davis@mccombs.utexas.edu
office: GSB 5.124A
office hours: M 9:30-10:30am & 12:30-3:15pm & W 9:30-10:30am
(or by appointment…includes weekends)

II. Meeting Times:

<table>
<thead>
<tr>
<th>Section</th>
<th>Class time</th>
<th>location</th>
<th>Lab time</th>
<th>Lab location</th>
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</thead>
<tbody>
<tr>
<td>05160</td>
<td>TTH 8am-9:30am</td>
<td>CBA 4.330</td>
<td>M 9-10am</td>
<td>CBA 5.304</td>
</tr>
<tr>
<td>05165</td>
<td>TTH 11am-12:30pm</td>
<td>CBA 4.330</td>
<td>M 10-11am</td>
<td>CBA 5.304</td>
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<tr>
<td>05170</td>
<td>TTH 12:30pm-2pm</td>
<td>CBA 4.330</td>
<td>M 11-12noon</td>
<td>CBA 5.304</td>
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III. Class Format:
Students will be exposed to readings, case studies, instructional videos and lectures for knowledge; as well as labs, hands-on data creation and group projects for experience. This course introduces the disciplines of market research as required for professional practice and research.
Please be aware of the few requirements of students that are separate from assignments:
No digital devices (phones, pads, laptops) are to be used in class. Your learning will be helped by physically taking notes. If you need to take an important call, please leave the room and take it…that’s OK. Exceptions will be granted when we discuss SPSS issues in class (in addition to labs).
Name tags/plates will be required in class on every class meeting (including labs).
• Lectures: tie together the various aspects of market research that labs, readings and assignments seek to reveal. Focusing on methods of inquiry, practical application and analytical discipline, attendance at lectures are required.
• Labs: also required, statistical labs help learning by developing a familiarity with data, its measurement rigor, statistical development of patterns and an integration of the details of data analysis with the solution of real marketplace problems. Students are required to purchase a one-year license for SPSS (“IBM SPSS Statistics Premium Grad Pack 23.0 Academic”) at the Campus Computer store: Hurry or they’ll be sold out!, a user-friendly statistical package with worldwide presence and serious statistical chops. The campus computer store can provide you with a link for downloading the software on a Mac or PC, cost is ~$120 (there is no textbook required for the course, and this is the primary expense.) Lab attendance - and completion of assignments - will be required for students. Complimentary, but not always coinciding with the materials covered in lectures, the analytical questions answered in the labs will be summarized and discussed in a concise written form (.doc or .pdf), to be turned in to your grader before 6pm on the Sunday before the next lab. Independent work is essential to lab success, but discussion among classmates is encouraged. I want to see that each student is assimilating the information well, and copying or sharing of lab work will be rewarded with poor grades.
• Group Project: hands-on development of a research project will give students an opportunity to put important aspects of good research practice in action, including sampling, measurement design and data collection, analysis and reporting. Each group will perform a limited study of a common data set, prepare and deliver a presentation of results. Teams of three students will contribute to the design the study, a survey questionnaire, collection of data, analysis and interpretation of the data. Each team will write a report and present their findings in a 15 minute presentation at the end of the semester. Videos can supplement your presentation, but cannot constitute the whole presentation. A major part of your grade, this project is important because it allows you to demonstrate your understanding of the materials we cover during the semester in practical terms. The ‘group’ structure of this exercise is to promote collaboration, not departmental thinking or avoidance of the parts you don’t like to do. Each member of the group will be expected to perform all parts of the project, to be collectively edited and formed into the best presentation - of the most cogent findings - by the end of the semester. Each team member will be graded by the other members of the team, so constructive contribution and slacking will both be rewarded appropriately.
• Quizzes on assigned readings should be expected every other Wednesday. (Alternating weekly with Lab Assignments)

All grades will be posted on Canvas: http://canvas.utexas.edu/
• Readings: It is strongly recommended that you be familiar with the current week’s assignments for each class period. (readings listed for a class are to be read PRIOR to that class.) Each student is expected to be familiar enough with these materials to discuss their importance to our topic in class. Your absorption of the material will be tested in frequent quizzes.
A variety of sources make up the required readings, much of which is in a single document that will see additions as the term progresses. Data Quality, Content and Value: An Introduction is available through Sentiapublishing.com.

Students will be required to read several chapters from two widely available (cheap) paperbacks:

a) MoneyBall, by Michael Lewis, and…
b) The Shallows: What the Internet is Doing to Our Brains, by Nicholas Carr

Note: I'll make a digital version of these chapters available to you, but reading every word of these books will serve you well. These chapters are the minimums. Each class will begin with a discussion of…

a) what did you learn last class/readings?, and
b) what did you learn from this week’s readings?

Students will be called on in class to respond to these two questions with regularity, and their responses contribute greatly to their ‘participation’ grade.

• **Participation** in the class is essential to gain the training and preparation you seek in this class. You will receive a grade for every class, to be determined by a) your presence, b) your attentiveness during class, c) your demonstration of being prepared d) your contribution to the learning process in class and its activities.

Timidity and bashful reservation are discouraged in this class, as you will be expected to have done any required readings (or other preparation), and have developed questions about the content in time for class. *The only dumb questions are the ones you don’t ask.* Participation is viewed as a manifestation of the student’s interest in the topic, and will be rewarded. *Just showing up and paying attention is not enough to earn full credit for this part of your final grade.*

**EXTRA CREDIT:** in addition to other contributions to the class, a limited number of opportunities will be made available to deliver and present an example of data-based decision making to the class for extra credit. Any such presentation must be cleared by Prof. Davis, and will be required to meet a high standard of rigor, make a useful contribution to the class’ understanding of the topic, and can be delivered as an individual efforts or from a small group.

The **final grade** for the class will be determined by these factors:

• 5 Lab Assignments
• 6 Quizzes (we'll drop your worst grade)
• Contribution to your team’s effort from start to finish of the semester
• Participation in class (adding to the learning experience for everyone)

Think in terms of a regression model:

\[ \text{Final Grade} = (\text{Average of Quizzes}) \times 30\% + (\text{Group project}) \times 25\% + (\text{Average of Lab & other assignments}) \times 25\% + (\text{Class Participation}) \times 20\% \]

Note: I hold in reserve the option to add formal exams to the mix.

**IV. Students with Disabilities**

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259. Please also contact me early in the semester regarding any special assistance I may provide.

**V. Class Schedule**
**Week 1: Introductions, expectations, get started**

*** Purchase and install SPSS, have ready for lab next week (September 10)***

**September 4:** Intro, admin, overview of Evidence Based Decision making

**Chapter I: The Quality of our Facts** in “Data Quality, Content and Value”

**Sept 6:** Doing less wrong: reducing error

“How to make a bad decision” from 11/17/16 #266 Freakonomics Radio
http://freakonomics.com/podcast/make-bad-decision/

https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-most-perfect-union?cid=other-eml-alt-mip-mckoth-1806&hlkid=fd643b91c9a645cda20ed07dc1fe6799&hctky=9967723&hdpid=bf9795c7-a8fa-4516-a1cd-96bd26c6f68c

**MoneyBall: Preface** and **Chapter 6** “The Science of Winning an Unfair Game”.

**Week 2:** Creativity in the Scientific Method: How we think about our problems

Lab 1 intro to SPSS: intro, frequencies, cross tabs, Indexes **Lab Assignment #1 DUE Sept 16**

**Sept 11:** The Craft of Measurement

**Chapter II: Measurement** in “Data Quality, Content and Value”


**Sept 13:** Gathering v. Creating Data: Quality Matters

**MoneyBall: Chapter 4** ‘Field of Ignorance’

**Lone Star Turnaround: Wall Street Journal**
https://www.wsj.com/articles/astrobball-review-lone-star-turnaround-1531778634?mod=djem_jiewr_MG_domainid

**Quiz #1 (MoneyBall, Measurement through Sept 11 readings)**

**Week 3: Planning and Design of Research**

Lab #2: Asking Questions of data: **LAB ASSIGNMENT #2 DUE SEPT 30**

**Sept 18:** Introduce Class Project, Assign teams
http://www.npr.org/books/titles/138065297/the-shallows-what-the-internet-is-doing-to-our-brains

Chapter 7 : “The Juggler’s Brain” and “a digression” that follows in The Shallows - What the Internet is Doing to our Brains by Nicolas Carr

Groups are to meet each other, discuss and present their thoughts on our survey topic on Sept 25 (deliver a hard copy of group discussions in class)

**Sept 20:** Does X cause Y? Experimental & Quasi-Experimental Research Design

**Chapter III: Experimental Design** in “Data Quality, Content and Value”

https://www.fastcodesign.com/1662273/google-equates-design-with-endless-testing-theyre-wrong
Week 4: Finding Patterns in our thoughts and behaviors

Lab #3: Is there an association between two variables? Lab Assignment #2: measures of association, Proportional Reduction of Error (PRE)... DUE SEPT 30

Sept 25: Theoretical Purpose of our Survey
Groups turn in written overview & discuss their theories on our topic and plausible findings

Sept 27: Sampling & Representation
Chapter IV: Sampling in “Data Quality, Content and Value”

Quiz #2 (Sept 13 through Sept 25 readings)

Week 5: Sampling & Survey Design
Lab4: Measures of Association & Segmentation Lab Assignment #3: Behavior-based Segmentation DUE Oct 14

October 2: Structuring our Survey’s Content


“Getting in Front of data Quality” Webinar Summary from Thomas C. Redman in hbr-from-data-to-action.pdf in Canvas (Where Dr. Redman describes the jobs many of you will have.)

Oct 4: Segmentation techniques (simple, factor, cluster, CHAID)
http://www.statisticssolutions.com/cluster-analysis-2/
https://en.wikipedia.org/wiki/Geodemographic_segmentation
while here, read about Claritas’ Prizm at
https://en.wikipedia.org/wiki/Claritas_Prizm
Case Study: Segmenting Personas with Factor Analysis

Week 6: Control over Data Collection & Interpretation
Lab 5: Segmentation Lab Assignment #3: Behavior-based Segmentation DUE Oct 14

Oct 9: Guest Speaker: Mark Sherman, President & Founder, NehMedia: Optimizing Facebook Marketing
MUST READ: https://hbr.org/2017/03/whats-the-value-of-a-like

“Story-Driven Data Analysis”, by Bayer & Taillard in ‘hbr-from-data-to-action.pdf” in Canvas

Chapter V: The Harvest of Data in “Data Quality, Content and Value”

Oct 11: Practice survey administration
https://utexas.qualtrics.com
Group: Survey finalized
Questionnaire: https://wikis.utexas.edu/display/MSBTech/Surveys
Group: Field Survey Begins today, ends on Halloween, October 31 at 9pm

Quiz #3 (Sept 27 through Oct 9 readings)
Week 7: Regression Applications

Lab 6: Develop Interaction terms for modeling Lab Assignment #4: Interactions and regression as explanation DUE OCT 28

Oct 16: Customer acquisition with data/stat review
http://www.socialresearchmethods.net/kb/statdesc.php

Oct 18: Regression Application: Predicting behavior with attitudes
Case Study: Predicting Product use with Attitudes (ad-journal.pdf in Canvas)

Week 8: Applications in Business
Lab 7: Lab Assignment #4: Interactions and regression as explanation DUE OCT 28

Oct 23: Guest Speaker Dave McGuire, Senior Director Digital Operations, SunPower Corporation

Oct 25: Regression’s Broad Application - Optimizing Marketing Spend
Notes_Regression_intro in canvas.
Direct Marketing Examples: “Planning by Predicted Demand.pdf” and “DM_Response Deterioration.xlsx” in Canvas “Supporting Docs”

Quiz #4 (Oct 11 through Oct 23 readings)

Week 9: Focus on Advertising
Lab 8: Regression as Prediction Lab Assignment #5: Regression as Prediction DUE NOV 4
**NOTE: this final lab assignment is due in ONE WEEK***

Oct 30: Measurement in Advertising
Case Study: Ted Brader: Emotion in advertising
http://www.uvm.edu/~dguber/POLS234/articles/brader.pdf

Measurement at the heart of creative science - create a language for emotion from non-verbal cues with Pixar:

OCTOBER 31, at 9pm, is the deadline for surveys to be completed

November 1: Guest Speaker: James Lanyon, VP of Strategy and Innovation at T3: Advertising and Branding Measurement
Segmentation applications: Target Market Definition & Strategy

“This is your brain on Podcasts” Freakonomics Radio Archives #261 2/13/16
http://freakonomics.com/podcast/this-is-your-brain-on-podcasts/

Week 10: Focus on Planning & Policy Analysis
Lab 9: Your Survey Data!

Nov 6: Evaluation Research in Public and Private Affairs

Nov 8: Art + Science = Quality
“To Understand Consumer Data, Think Like an Anthropologist” Fournier and Reitveld in hbr-from-data-to-action.pdf in canvas

https://www.ted.com/talks/bran_ferren_to_create_for_the_ageslet_s Combine art and engineering#t-24962

Quiz #5 (Oct 25 through Nov 6 readings)

Week 11: Thinking through Interpretations of our Data
Lab 10: Factor Analysis and the use of ‘Personas’

Nov 13: Big Data & our assumptions
‘The Church of Google’ Chapter 8 in The Shallows
‘Big Data Requires Big Context” in hbr-from-data-to-action.pdf in canvas

Nov 15: The effects of our actions Evaluation Research
The Shallows: ‘A Thing Like Me’ Chapter 10
http://freakonomics.com/podcast/when-helping-hurts/
http://socialresearchmethods.net/kb/intreval.php

Week 12: Analysis of our Surveys: Project Completion
Lab 11: Project Analysis in Groups
Nov 20: Group Time: data analysis, prepare report and presentation

Quiz #6 (Nov. 8 through Nov 15 readings ***LAST QUIZ!**

Nov 22: Be Thankful

Week 13: Projects in lab
Nov 27: Labs (and support) available for group projects
Nov 29: Group: Presentations Begin (15 min ea.)

Week 14: no lab
Dec 4: Group Presentations
Dec 6: Group Presentations