MKT 460: Analysis & Information
Spring 2017

“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 information and how this information is properly obtained and conveyed.
> Learn how to set up a research design.
> Know and understand - well enough to apply - different methods of data collection & data analysis.
> Improve business writing & presentation skills.
> Gain experience working in collaborative teams.

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

I. **Instructor:** In addition to his teaching responsibilities, John Davis is a practicing market researcher with deep experience applying behavioral research discipline to the problems and opportunities of consumer-centric businesses. In addition to his corporate career, John has started, operated and eventually sold two market-research based businesses concerned with the quantitative measurement of consumer markets and the effective harvest of demand through marketing practice. 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. John is published in professional journals of Direct Marketing and Advertising Research, and he brings his experience back to UT to ensure that graduates of McCombs Business School have a practical advantage in their pursuit of excellence in work.

He can be contacted as follows:
email: john.davis@mccombs.utexas.edu
office: CBA 5.176C
office hours: TTh 11am-1:30pm, W 10am-11am, also by appointment

**Teaching Assistant: Rahul Rawlani**
email: Rahul.Rawlani@utexas.edu
office: CBA 4.304A
office hours:
Also, feel free to email questions anytime!

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>05540</td>
<td>TTH 9:30-11:00am</td>
<td>GSB 5.153</td>
<td>W 11:00-12:00</td>
<td>CBA 5.325</td>
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III. **Class Format:**
Students will be exposed to readings 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 prac-
tice and research. A combination of exams, written assignments and other indicators of the student’s progress will determine final grades.

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.

Name tags 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 methodological imperatives of good research. Students are required to purchase a one-year license for SPSS (Statistical Package for Social Sciences), 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 the TA before 6pm on the following Monday. 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 poorly viewed.

- 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, 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. 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.

Grades will be posted on Canvas: http://canvas.utexas.edu/

* Quizzes on assigned readings should be expected on most Thursdays.

- Readings: “How to Lie with Statistics” by Darrell Huff is the first reading for the class and is to be read immediately. It introduces the many ways that evidence can be misinterpreted or incorrectly gathered, measured or sampled. It will serve as a guide to the first part of the class, regarding what can go wrong with data.

- Students will also be required to read “Moneyball”, by Michael Lewis. The book will serve as material for discussion in class and important background for you to integrate into your class project. Seeing the movie will not help you in this effort, in fact, it will derail your interpretation of the material.

Other materials (case studies, articles, etc.) accompany each week’s readings (read before class) and some are highlighted here in blue.

You will be required to write a business case study illustrating the lessons made available in Moneyball. The challenges to the baseball business are no different than those encountered by many businesses. Your paper will give you the opportunity to reveal an understanding of the role that the scientific method can play in innovation, as well as the role of leadership, clear problem definition and the setting of realistic expectations.
* 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.

You will receive a participation grade for each class meeting, and each lab meeting. Grading will follow a standard rubric:
7 points are awarded for your presence - surprise (I’m not warned ahead of time) absences get zeros.
8 points awarded for demonstration that you’ve read and assimilated the materials due that meeting
9 or 10 points awarded for strong contribution to the class learning effort: demonstration of thought and introduction of questions to the class meeting.
Note: napping in class, ignoring the ‘no digital’ rule, causing distractions, excessive chatting aside from course discussions will result in deductions from the participation grade.

The final grade for the class will be determined as follows:

Final Grade = (Average of Quizes)*30% + (Group project)*15%+ (Average of Lab & other assignments) *20% + (Moneyball inspired paper)*15% + (Class Participation)*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 (subject to change)

First Trimester: The qualities of good evidence

Week 1: We meet at last
January 17: Intro, admin, overview of Evidence Based Decision making

Jan. 19: Start with your future

Week 2: Lab 1 intro stats package, data read in, levels of measurement.
Jan 24: Fundamentals of research
http://www.socialresearchmethods.net/kb/intres.php
follow all links except `5-syllable words’, `Positivism & Post-Positivism’ & `Evaluation Research’
Get started on “How to lie…” ASAP

Jan 26: Systematic Process makes for good data, good decisions
http://www.socialresearchmethods.net/kb/design.php
skip ‘designing designs’ & advances in quasi-experimental design’ for now

Week 3: Lab 2 frequencies, data clean-up
Jan 31: Market Research Applications
Data: viewed as content, Big, Primary & Survey, Secondary
Problems: the will to solve, ability to define

Feb 2: Research Design responds to a Business Question
http://www.socialresearchmethods.net/kb/desdes.php
http://www.socialresearchmethods.net/kb/advquasi.php

Week 4: Lab 3 cross tabs & interpretation
February 7: How to Lie with Statistics
Begin MoneyBall
http://www.socialresearchmethods.net/kb/desdes.php
http://www.socialresearchmethods.net/kb/advquasi.php

Second Trimester: Creating good evidence for problem solving

Week 5: Lab 4 Questionnaire Development https://wikis.utexas.edu/display/MSBTech/Surveys
February 14: The Craft of Measurement
http://www.socialresearchmethods.net/kb/measure.php
Omit ‘Survey Research’
Under ‘Scaling’, only read ‘General Issues in Scaling’, omit ‘concept mapping’

Teams (of three) for the Class project are assigned by this week.

Feb 16: Measurement - Operationalization of concepts, building Constructs
http://ccnmtl.columbia.edu/projects/qmss/measurement/conceptualization.html
Groups: define projects, produce research plan & survey (due Feb 23):
study purpose, approach, design, sampling, analysis planned, survey
Discuss Moneyball-inspired case study

Week 6: Lab 5 Survey data analysis
Feb. 21 Data Collection
http://www.socialresearchmethods.net/kb/survey.php

Feb 23: Big Data vs. Specific Problems
NOTE: in the above reading, also read the link (half way through the article): "Data Analyst: Does Everybody Need to be One?"

Guest Speaker: TJ Riley & Mark Sherman, Re: Big Data collection & structuring

Week 7: Lab 6 Survey administration practice
Feb 28: Purpose driven analysis of data
http://www.socialresearchmethods.net/kb/statdesc.php
in this reading, also read the link to ‘inferential statistics’, but do not read the links it includes.
Mar 2: **Defining a study: when/IF the data is Truth, follow the evidence**
Present process & findings of UT Politician Branding study (Fall ’16)
*You should have completed MoneyBall by now...*

**Begin Survey Collection: due April 1**

**Week 8: No Lab**
March 7: **Significant differences**
http://www.nku.edu/~intsci/sci110/worksheets/basic_ttest_info.html


for lambda: http://www.auburn.edu/~bowlicj/ps3000/bivariateanalysis.htm

http://www.socialresearchmethods.net/kb/power.php

March 9: **Explaining variance vs. Predicting an outcome**
Case Study: Direct Marketing (in Canvas)
*MoneyBall paper Due.*

**SPRING BREAK MARCH 12-18**

**Week 9: Lab 7 Regression - significance, confidence, explanation, prediction**
Mar 21: **Regression Applications - Case Studies**
*Continue to Collect Survey Responses*

https://www.youtube.com/watch?v=k_OB1tWX9PM

Mar 23: **Combining analytical strategies**
Case Study: Attitudinal segmentation in Financial Services Targeting (ad-journal.pdf in Canvas)
*Continue to Collect Survey Responses*

**Third Trimester: Analysis & Interpretation of high-content evidence**

**Week 10: Lab 8 Segmentation with a dependent variable**
Mar 28: : **Segmentation techniques (simple, factor, cluster, CHAID)**

Mar 30: Case Study: Segmenting website proclivity with Factor Analysis (CatFactors_1.xls in Canvas)
Segmentation applications: Target Market Definition & Strategy (Computer Positioning.doc in Canvas)

**Week 11: Lab 9 Read in Our Very Own Survey data**
April 4: **Guest Speaker: Facebook and a comprehensive data resources strategy**

April 6: **Dramatic effect from simple measures: Advertising**
Case Study: Ted Brader: Emotion in advertising

**Week 12: Lab 10 Analysis of our Surveys**
April 11: **Case Study: Product testing Applications**
Readings in Canvas
April 13: Reporting of results in a professional context

**Week 13: Lab 11 Project work**
April 18: Evaluation Research in Public and Private Affairs
    Guest Speakers: City of Austin and Private Enterprise (program/policy evaluation)

April 20: Finalize & Practice Presentations

**Week 14: no lab**
April 25: Group Presentations
April 27: Group Presentations

**Week 15: no lab**
May 2: Group Presentations
May 4: Group Presentations