# MKT 372.29 – Customer Analytics & Database Marketing

<mark>PRELIMINARY DRAFT for Spring 2024</mark>

## Rex Yuxing Du

Professor of Marketing, McCombs School of Business, University of Texas at Austin

**The syllabus is a general plan for the course; changes announced to the class by the instructor may be necessary. You are responsible for keeping up with any adjustments.**

| | |
|---|---|
| Email: rex.du@mccombs.utexas.edu | Office: CBA 7.208 |
| Day/Time: Tue & Thu 12:30 – 1:45 PM | Classroom: UTC 1.118 |

**Office Hours**: Thu 2:00 – 3:00 PM (in person) and by appointment (Zoom)

**TA**:
**TA Office Hours**:

**Zoom Meeting Info** (for by appointment office hours):
Meeting ID: (**must join with UT Zoom account**)

**Canvas Page**:

**Course Materials**:

1. Required coursepack –
2. Supplementary readings, datasets, slides, notes, etc. available @ Canvas; slides for each class will be posted **AFTER** the class
3. Check your email (the one on UT class roster) on a regular basis for class announcements
4. Recommended reading – "Competing on Analytics: The New Science of Winning," by Thomas H. Davenport and Jeanne G. Harris, available @ amazon.com

**Software**:

1. Microsoft Excel (with Solver enabled)
2. BlueSky Statistics Open Source Edition (10.3.2 GA), downloadable @ https://www.blueskystatistics.com/ is a fully featured analytical workbench.
- It is free and works for both PC and Mac. Follow the instructions carefully for installation.
- An intuitive graphical user interface, attractive interactive output for hundreds of frequently used exploratory analysis, data preparation, visualization, basic and advanced modeling techniques including model scoring.

- Automatic R syntax generation for hundreds of frequently used exploratory analysis, data preparation, visualization and modeling techniques. R syntax editor that allows you to write and execute R code and see richly formatted output. Save and share output in PDF, HTML.

**Course Background:**

Customer Relationship Management (CRM) represents Marketing's return to its pre-industrial revolution origins of doing business through one-to-one relationships, using the new technological advances brought up by the information revolution. Traditionally, marketers have grown accustomed to focusing on the acquisition of new customers through mass advertising and price-oriented promotions, accepting as a fact of life that these customers would eventually switch to competitors. As more and more markets reach saturation, customer acquisition comes mostly at the expense of competitors, leading to a frontal battle for "switchers." As a result, the focus of marketing has been shifting from customer acquisition to development and retention, particularly for the firm's "best" customers.

This shift from customer acquisition to development and retention requires a change of mindset from product-centric, transactional marketing to customer-centric, relational marketing, and a new set of analytical tools for understanding and predicting customer behavior (i.e., customer analytics). Since the customer base is now treated as one of the most valuable assets of the organization, the customer database becomes the focus of analysis and the platform for developing and implementing marketing strategies and tactics.

This course addresses two broad themes: 1) customer-centric value-based marketing, and 2) customer data analytics. The first theme explores what customer relationship management and customer equity mean. The customer lifecycle is introduced as an integrating framework. The importance of customer profitability and lifetime value as a criterion in CRM decisions is emphasized. The second theme emphasizes the analysis of customer database, with a particular focus on different types of predictive models (e.g., whether a customer will respond to a marketing offer, whether a customer will churn, or which products a customer would be most likely to buy next).

This course also introduces issues, techniques and terminologies associated with database marketing and machine learning. Specific topics include, for example, RFM analysis, lead scoring, cluster analysis for segmentation, collaborative filtering and association rules for product recommendation, etc. The focus will be on intuition and real-world applications in the context of CRM. It would be a good fit for students who are interested in improving their skills in business analytics in general, customer/marketing analytics in particular.

**Learning Objectives:**

- To build your knowledge of customer-centric marketing;
- To emphasize the importance of the customer lifecycle and customer valuation in CRM;
- To emphasize how customer analytics can help accomplish strategic marketing initiatives and improve firm profitability;
- To expose you to various commonly used analytical tools for database marketing.

**Class Format:**

The primary teaching philosophy of this course will be *learning by doing*. We will use a variety of tools to help understand the basic concepts of CRM, and learn the tools for its implementation with direct hands-on experience:

- Lectures
- Case analyses and in-class case discussions
- In-class data analytics demonstration
- Data-intensive exercises and database marketing contest

**Class Participation:**

Quality contributions that are relevant to in-class discussions will improve your participation/in-class contribution grade. I will cold call on students at random to open case and assignment discussions. Your class participation grade will be significantly hurt if you are called upon to offer your analysis on a case or assignment question and you are not prepared.

**Individual and Group Exercises:**

Much of the learning during the course will take place with the help of individual and group exercises. If an exercise is labeled "individual" you are not allowed to work with other students – it should reflect your own work only. If an exercise is labeled "group" you should work on it in groups, four students per group, and only submit one group write-up. Groups should remain constant for all group exercises. It will be a violation of academic integrity if you base your assignments on solutions you have found on the Internet or which you have obtained from others inside or outside of UT. If you are uncertain about the nature of any assignment or resource, please ask me.

Every group member is expected to participate actively in all aspects of the group exercises. Group participation grade will be determined by the average of peer evaluations. Specifically, each group member will evaluate, at the end of the course, the contribution made by the other group members on a 100-point scale, which in turn will determine the proportion of your group's grades that you will get credit for.

**UT Student Honor Code and Classroom Etiquette:**

All academic work must meet the standards in a culture of honesty, and you are expected to comply with the UT student honor code. All students are responsible for informing themselves about those standards before performing any academic work.

Our classroom, both online and in-person, shall have a professional environment.

**Grading:**

Assignments and activities will contribute to the final grade according to the table below.

| Grading Element | Weight |
| --- | --- |
| Grupo IUSACELL case write-up (**group**) | |
| Harrah's Entertainment case write-up (**group**) | |
| Pilgrim Bank case write-up (**group**) | |
| King-Size Co. case write-up (**group**) | |
| Customer Churn at QWE case write-up (**group**) | |
| Data analytics exercises (**individual**) | |
| Essay on course takeaways (**individual**) | |
| Database marketing contest (**individual**) | |
| In-class contribution (**individual, evaluated by the instructor at the end of the semester**) | |

**Grading Distribution**

| Semester Average | Grade |
| --- | --- |
| 93-100 | A |
| 90-92 | A- |
| 87-89 | B+ |
| 83-86 | B |
| 80-82 | B- |
| 77-79 | C+ |
| 73-76 | C |
| 70-72 | C- |
| 67-69 | D+ |
| 63-66 | D |
| 60-62 | D- |
| 59 or less | F |

**Class Attendance**

Attendance is mandatory for all class sessions. If you cannot attend a session for one reason or another, let me know by **email** in advance. **1% will be deducted from the final grade for each unexcused absence**.

**Summary of Class Sessions:**

**This a general schedule for the course; adjustments may be necessary.**

| Session | Date | Day | Topics | Coursepack Materials |
|---|---|---|---|---|
| 1 | | Tue | Course Overview | |
| 2 | | Thu | Customer Lifecycle | |
| 3 | | Tue | Customer Lifetime Value | Customer Profitability and Lifetime Value |
| 4 | | Thu | | Grupo IUSACELL |
| 5 | | Tue | Customer Equity | Valuing Customers (Canvas) |
| 6 | | Thu | Customer Centricity | Harrah's Entertainment, Inc. |
| 7 | | Tue | Database Marketing I | Pilgrim Bank (A): Customer Profitability |
| 8 | | Thu | | Pilgrim Bank (B): Customer Retention |
| 9 | | Tue | | Pilgrim Bank (C): Electronic Billpay |
| 10 | | Thu | Database Marketing II | |
| 11 | | Tue | | |
| 12 | | Thu | Customer Acquisition I | The King-Size Company |
| 13 | | Tue | | |
| 14 | | Thu | Customer Acquisition II | |
| 15 | | Tue | | |
| 16 | | Thu | | |
| 17 | | Tue | Customer Development I | Size and Share of Customer Wallet (Canvas) |
| 18 | | Thu | | |
| 19 | | Tue | Customer Development II | |

| 20 |  | Thu |  |  |
|----|--|-----|--|--|
| 21 |  | Tue | Customer Retention | Predicting Customer Churn at QWE Inc. |
| 22 |  | Thu | | |
| 23 |  | Tue | Customer Intelligence | Progressive Insurance: Multivariable Testing |
| 24 |  | Thu | | |
| 25 |  | Tue | Customer Trend Analysis | |
| 26 |  | Thu | | |
| 27 |  | Tue | Database Marketing Contest Debrief ||
| 28 |  | Thu | Course Review ||