**Marketing Analytics (MBA)**

# Why Do You Want to Learn Marketing Analytics?

The objective of the course is to show you the benefits of using a systematic and analytical approach to marketing decision-making. An analytical approach will enable you to:

* Use and execute data analytic techniques, and case studies to understand how to solve marketing analytics problems in a scientific and process-driven manner, and
* Understand how the “first principles” of marketing strategy help firms organize the analytics opportunities and challenges that exist in today’s data era.

In this course, I argue that most analytic challenges facing marketing researchers, consultants, and managers can be integrated under one umbrella that comprises four fundamental marketing problems:

* All customer are different
* All customer change
* All competitors react
* All resources are limited

I will then emphasize how the “first principles” of marketing strategy help solve the four fundamental marketing problems, and help you develop analytic competencies pertaining to each of the four first principles. You will learn many different marketing analytics techniques in this course. Overall, by completing this course, you will be on your way to making the ROI case for marketing expenditures that companies are increasingly asking of their executives.

**What will Class be Like?**

I will use the “Tell-Show-Do” sequence to give you hands-on experience in using the course materials for making marketing decisions. Lectures (supplemented by the text) will cover the concepts and models you need to understand to bring the scientific approach to marketing. The application of these concepts and models, using the software tools available with the text, will give you hands-on opportunities to resolve real-life marketing problems. I welcome student contact and will do my best to accommodate you.

**Texts and Course Materials**

* ***Text:***Marketing Analytics Based on First Principles, by Robert W. Palmatier, J. Andrew Petersen, and Frank Germann (available for purchase at the bookstore).
* ***Software***: R and Tableau. R is a free software, and Tableau is free for all full-time students. We will discuss how to download the software in class.
* ***Cases:*** The four cases we will cover in this course are available for purchase and download here: [**http://store.darden.virginia.edu/XXXXX**](http://store.darden.virginia.edu/XXXXX)**.** Details will be discussed in class.

**Assignments and Assessments**

**Class participation (Individual):**  All students should read each assigned book chapter as well as the four cases. **Please bring name cards to classes**. I emphasize **quality of participation much more than quantity**. Your contributions will count for more if you build on the comments/insights offered by others (including me) in the class. The purpose of class participation is learning. So, do not attempt to dominate the conversation.

**Model replication assignments (Individual):** This course focuses on “learning by doing.” I will show you in class how to estimate the various models covered in the course using R and Tableau. You will then be asked to replicate these models outside of class. The purpose of these replication assignments is for you to get first-hand experience with these models and to build a marketing analytics toolkit. Beyond the replication of the models and results discussed in class, you will also be asked to provide a brief **(about half a page per assignment)** summary of what the model does and when to use it. These summaries will serve as a reference resource for you when you go on to your internships/full-time jobs. **I will drop your two lowest replication assignment scores.**

**Case Analyses (Team):** We will be covering four cases in this course. You will work on these cases as part of your learning team, and each member of the team will get the same grade. Each case will focus on a different First Principle. In lieu of a traditional case write-up, you will be asked to turn in case slides (i.e., Power Point slides). These slides are due **before the respective class when we will discuss the case (see course outline below)**. I will lead class discussion of the cases, but may call on any and all teams to discuss their analysis of the case. If you have supplemental notes for your slides, please print a copy of your slides in Notes view. Your case slides should highlight your ability to communicate the results of the case in a managerially relevant and implementable manner.

**Final Exam (Individual):** The final exam will be a closed-book exam, and cover all content discussed in the course. The final exam will include multiple choice, true-false, and short essay questions. Details will be discussed in class.

**Assessment Components:** The grade components will be weighted as follows:

Class Participation 10%

Replication Assignments (10; 2% each) 20%

Cases (4; 10% each) 40%

Final Exam 30%

**Class Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Topic** | **Assignment** | **Chapter** |
| 1.1 | Introduction to Marketing Analytics |  | 1 |
| 1.2 | Overview of R |  | 1 |
| 2.1 | Overview of Tableau |  | 1 |
| 2.2 | Principle 1: All Customers are Different |  | 2 |
| 3.1 | Principle 1: All Customers are Different   * Cluster Analysis and Segmentation | Replication | 3 |
| 3.2 | Principle 1: All Customers are Different   * Targeting and Classification | Replication | 4 |
| 4.1 | Principle 1: All Customers are Different   * Perceptual Mapping and Positioning | Replication | 5 |
| 4.2 | Review Principle 1 and Analytics Techniques  Introduce CASE 1 |  |  |
| 5.1 | CASE 1: Sticks Kebob (segmentation) | Case Analysis |  |
| 5.2 | Principle 2: All Customers Change |  | 6 |
| 6.1 | Principle 2: All Customers Change   * RFM Analysis | Replication | 7 |
| 6.2 | Principle 2: All Customers Change   * Logistic Regression | Replication | 8 |
| 7.1 | Principle 2: All Customers Change   * Customer Lifetime Value | Replication | 9 |
| 7.2 | Review Principle 2 and Analytics Techniques  Introduce CASE 2 |  |  |
| 8.1 | CASE 2: Carvana (logistic regression) | Case Analysis |  |
| 8.2 | Principle 3: All Competitors React |  | 10 |
| 9.1 | Principle 3: All Competitors React   * Survey Design and Testing | Replication | 11 |
| 9.2 | Principle 3: All Competitors React   * Conjoint Analysis | Replication | 12 |
| 10.1 | Principle 3: All Competitors React   * Forecasting and Diffusion | Replication | 13 |
| 10.2 | Review Principle 3 and Analytics Techniques  Introduce CASE 3 |  |  |
| 11.1 | CASE 3: Portland Trailblazers | Case Analysis |  |
| 11.2 | Principle 4: All Resources are Limited |  | 14 |
| 12.1 | Principle 4: All Resources are Limited   * Marketing Mix Models | Replication | 15 |
| 12.2 | Principle 4: All Resources are Limited   * Experiments | Replication | 16 |
| 13.1 | Principle 4: All Resources are Limited   * Unstructured Data Analysis | Replication | 17 |
| 13.2 | Review Principle 3 and Analytics Techniques  Introduce CASE 4 |  |  |
| 14.1 | CASE 4: AirBNB | Case Analysis |  |
| 14.2 | Final Exam review |  |  |