

MGT 3310: MARKETING RESEARCH/ANALYTICS

Fall 2026, Session: Tuesday/Thursday 2:00 PM – 3:15 PM

Georgia Tower Scheller Tower, Room 0247

This is a tentative syllabus for Phase I registration and is subject to change.

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Office Hours: Thursday, 3:30 PM–4:15 PM (in office) and by appointment (via Zoom)

Course Description

This course covers the fundamentals of the analytical aspects of marketing research. The course has an applied orientation with application to contemporary issues in marketing.

Course Outline and Objectives

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

- Use data analytic techniques to address marketing problems in a structured and process-driven manner, and
- Interpret and communicate insights from data to support marketing decisions.

In this course, we will examine a range of common challenges in marketing analytics. As one way to organize these challenges, we will refer to the “first principles” of marketing strategy and the associated marketing problems:¹

Principle 1: All customers are different

We will study methods for understanding customer heterogeneity, including:

- Cluster analysis and market segmentation
- Targeting and classification (e.g., discriminant analysis)
- Perceptual mapping and positioning

Principle 2: All resources are limited

We will examine tools for resource allocation and causal inference, including:

- Marketing mix models using regression analysis
- Randomized experiments
- Quasi-experimental methods, including Difference-in-Differences (DID) and Propensity Score Matching (PSM)

Principle 3: All customers change

We will focus on modeling customer dynamics, including:

- RFM analysis
- Logistic regression
- Customer lifetime value (CLV)

¹ The “first principles” framework is adapted from Palmatier, Petersen, and Germann, Marketing Analytics Based on First Principles.

Principle 4: All competitors react

We will explore methods for understanding sustainable competitive advantages, including:

- Conjoint analysis
- Topic modeling

Throughout the course, you will gain hands-on experience implementing these methods using tools such as R and Tableau, and applying them to real-world marketing problems.

Overall, by completing this course, you will develop the skills to analyze marketing data and make informed decisions in real-world business settings.

Prerequisites

Students are expected to have a sound understanding of marketing, probability theory, as well as statistical analysis and some understanding of regressions. Accordingly, the following courses are required / strongly recommended for this course:

A. Marketing Management – MGT 3300, or equivalent

B. Management Statistics, Analytic Tools/Decisions – MGT 2250 or equivalent

Students who do not satisfy these prerequisites must get the approval of the instructor before finalizing their registration process.

Software

R and Tableau will be used. R is free software, and Tableau is free for all full-time students. We will discuss how to download the software in class.

Optional Reference

Marketing Analytics Based on First Principles, by Robert W. Palmatier, J. Andrew Petersen, and Frank Germann (Purchase is not required).

Grading and Course Requirements

Your overall course grade will be based upon the following components:

Grade Component	Weight	Content
Engagement (Individual)	20%	Active participation in class discussions and Replication of in-class implementation examples
Cases (Group)	30%	Data analysis and written case reports
Midterm Exam (Individual)	20%	Closed-book, in-person
Presentations (Group)	15%	Analysis of a topic chosen by your team
Final Exam (Individual)	15%	Closed-book, in-person

To successfully complete this course, students must complete all major course components, including exams, case assignments, and presentations.

AI Policy

You may use AI-based assistants for graded exercises, except during exams. However, you are strictly prohibited from uploading course pack materials or associated datasets to large language models

(LLMs). By using AI tools, you assume full responsibility for any errors or mistakes, including those generated by such tools. The use of AI tools or wearable devices to record, transcribe, or annotate class discussions is not allowed.

Attendance Policy

Attendance is expected for all class sessions, as the course schedule is intensive and missing a class may make it difficult to keep up. Students will not receive engagement credit for any missed class.

Students may be given the opportunity to make up missed engagement credit for properly communicated absences, including: (i) pre-approved absences (e.g., Institute-sponsored activities or those coordinated through the Dean of Students); (ii) emergency absences, reported as soon as possible and supported by documentation; and (iii) two “free passes” per semester for legitimate reasons (e.g., job interviews, minor illness), for which advance notice is required. Excessive absences may negatively affect your overall course performance.

Academic Integrity/Honor Code

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech’s Honor Code](#) and the student [Code of Conduct](#). Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodation for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the [Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The [Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Class Schedule

The schedule and topics are subject to change based on course progress.

Week	Date	Topic
1	Aug 25	Intro to Marketing Research/Analytics; Overview of Course Plan
	Aug 27	Overview of R and Tableau; Intro to Principle 1: All Customers are Different
2	Sept 1	Principle 1: All Customers are Different <ul style="list-style-type: none">Cluster Analysis and Segmentation

Week	Date	Topic
	Sept 3	➤ Implementing Cluster Analysis with R & Tableau
3	Sept 8	Principle 1: All Customers are Different <ul style="list-style-type: none"> • Targeting and Classification
	Sept 10	➤ Implementing Discriminant Analysis and Classification with R & Tableau
4	Sept 15	Principle 1: All Customers are Different <ul style="list-style-type: none"> • Perceptual Mapping and Positioning
	Sept 17	➤ Implementing Perceptual and Preference Mapping with R & Tableau
5	Sept 22	Principle 2: All Resources are Limited <ul style="list-style-type: none"> • Marketing Mix Models using Regression Analysis
	Sept 24	➤ Implementing Marketing Mix Models using Regression Analysis with R & Tableau
6	Sept 29	Principle 2: All Resources are Limited <ul style="list-style-type: none"> • Experiments • Quasi-Experiments: Difference-in-Differences
	Oct 1	➤ Implementing DID with R
7	Oct 5	Fall break. No class.
	Oct 8	Principle 2: All Resources are Limited <ul style="list-style-type: none"> • Quasi-Experiments: Propensity Score Matching
8	Oct 13	➤ Implementing PSM with R & Tableau
	Oct 15	Midterm Review; Intro to Principle 3: All Customers Change
9	Oct 20	Midterm Exam
	Oct 22	Principle 3: All Customers Change <ul style="list-style-type: none"> • RFM Analysis
10	Oct 27	➤ Implementing RFM Analysis with R & Tableau
	Oct 29	Principle 3: All Customers Change <ul style="list-style-type: none"> • Logistic Regression
11	Nov 3	➤ Implementing Logistic Regression with R & Tableau
	Nov 5	Principle 3: All Customers Change <ul style="list-style-type: none"> • Customer Lifetime Value
12	Nov 10	➤ Implementing Customer Lifetime Value with R & Tableau
	Nov 12	Intro to Principle 4: All Competitors React
13	Nov 17	Principle 4: All Competitors React <ul style="list-style-type: none"> • Conjoint Analysis
	Nov 19	➤ Implementing Conjoint Analysis with R & Tableau
14	Nov 24	Principle 4: All Competitors React <ul style="list-style-type: none"> • Topic Model
	Nov 26	Thanksgiving break. No class.
15	Dec 1	➤ Implementing Topic Model with R
	Dec 3	Presentations of Real-life Applications
16	Dec 8	Presentations of Real-life Applications; Course Summary and Wrap-up
17	Dec 15	Final Exam