Instructor: Dr. Gautham Vadakkepatt, Assistant Professor of Marketing
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Fax: (703) 993-1809
E-mail: gavadkke@gmu.edu

Course Website: BLACKBOARD

Class Time and Location: Thursday, 4:30 p.m.-7:10 P.M.,
Enterprise Hall 173

Office hours: Thursday 10 a.m. to 12.00 noon (or by appointment)

Required Materials:  

A. Course Pack
   http://cb.hbsp.harvard.edu/cbmp/access/75016956

In this course pack you will find cases that are required for this course. There are also reading materials on the methods of each module.

B. Software
   Students are required to bring a laptop to class
   1) SPSS (We will use Virtual Computing Lab access to SPSS)
   2) Tableau Software (FREE after you follow instructions below)
      • Download the latest version of Tableau Desktop here
      • Click on the link above and select Get Started. On the form, enter your school email address for Business E-mail
COURSE DESCRIPTION

In today’s technology enabled world, organizations collect a lot of information as a part of their business operations and pool it with data acquired from outside sources. Marketing analytics is a systematic approach to harnessing this data/information to drive effective marketing decision making. We will learn to analyze historical data, market research data, and competitive information for making strategic marketing decisions.

This course will be extensively based on hands-on exercises and case discussions. Decision making for each of the cases will utilize interpretation of techniques discussed in class while data assignments will test your ability to execute these techniques. Other pedagogical tools that will be used are lectures, in-class discussions, readings, and team assignments.

Specifically you will learn about: how to value customers, how to segment the market, how to position the product in customers’ minds, which attributes to include/exclude in a new product, and how to forecast sales. Each of these decisions will be made using analytic tools that are often used by marketers in the real world. These decision analytic tools will help us generate useful insights about customer preferences, consumer behavior, and competitive market actions.

Specifically, the course objectives are to:
- Help students understand the role of analytical techniques and show how they can enhance quality of marketing decision making in modern enterprises.
- Make students comfortable with using SPSS and Tableau
- Improve students’ ability to view marketing processes and relationships systematically and analytically.
- Expose students to various examples that demonstrate the value of marketing analytics in real managerial contexts.
COURSE POLICIES AND EXPECTATIONS

School of Business Standards of Behavior

The mission of the School of Business at George Mason University is to create and deliver high-quality educational programs and research. Students, faculty, staff, and alumni who participate in these educational programs contribute to the well-being of society. High-quality educational programs require an environment of trust and mutual respect, free expression and inquiry, and a commitment to truth, excellence, and lifelong learning. Students, program participants, faculty, staff, and alumni accept these principles when they join the School of Business community. In doing so, they agree to abide by the following standards of behavior:

- Respect for the rights, differences, and dignity of others
- Honesty and integrity in dealing with all members of the community
- Accountability for personal behavior

Integrity is an essential ingredient of a successful learning community. Ethical standards of behavior help promote a safe and productive community environment, and ensure every member the opportunity to pursue excellence. School of Business can and should be a living model of these behavioral standards. To this end, community members have a personal responsibility to integrate these standards into every aspect of their experience at the School of Business. Through our personal commitment to these Community Standards of Behavior, we can create an environment in which all can achieve their full potential.

In-Class Behavior

Most of you will be graduating soon and taking a job in a corporate setting. It may be helpful in preparing you for that experience to think of class as a business meeting.

- You would avoid whispering and laughing with the person sitting next to you. You would listen attentively, probably take notes, and manage your face and posture to convey interest and competence.
- You would turn off your cell phone, beeper or pager to avoid disturbing the meeting.
- You would not read a newspaper or work on tasks unrelated to the meeting.
- You would avoid interrupting people or being rude in any way.
- You would wait until after the meeting to discuss special accommodations for your personal situation. Why? Because doing any of these things reflects badly on you.

As a member of this class, you are invited to think, question, disagree, and offer alternatives. However, my expectation is that you will behave professionally.

Honor Code Statement

The Honor System and Code adopted by George Mason University will be enforced for this class:

http://oai.gmu.edu/the-mason-honor-code/
In your work on all written assignments, keep in mind that you may not present as your own the words, the work, or the opinions of someone else without proper acknowledgement. You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement. Faculty are obligated to submit any Honor Code violations or suspected violations to the Honor Committee without exception.

_The School of Business “Recommendations for Honor Code Violations” is posted on the course website._

Assignments and exams that are determined to be in violation of the University Honor Code will result in a grade of zero. Infractions or appeals may be referred to the Honor Council for resolution.

**Announcements and Updates**

It is your responsibility to check Blackboard regularly for the addition of any supplemental course material. Email announcements between class meetings may be sent. Any email from me will be sent to your GMU email account.

**E-Mail Correspondence**

You must use your “GMUID@odu.edu” e-mail address for all communication with me via email. I will not respond to emails from any other address. This policy will be strictly enforced due to federal privacy laws which state that I am not allowed to provide confidential information to any non-GMU e-mail address. **When sending emails, please put “MKT 352” in the subject line of your email.**

**Attendance**

Attendance is expected. You will miss significant portions of the material; miss information critical for performing well in this course; as well as forfeit participation points if you are not present in class. You are responsible for all material covered in class. If you are absent from class, it is your responsibility to follow-up with your classmates about what you missed in class. **It is extremely crucial that you attend all sessions as students will be taught how to use software for specific data analysis techniques.**

**Religious Holidays, Sports, and School-Related Activities**

If you expect to be absent from class during the semester for any of the above reasons, please contact me within the first two weeks to make appropriate arrangements with regards to graded components of the course.

**Students with Disabilities**
George Mason University is committed to providing reasonable accommodations for students with disabilities in order to allow for equal learning opportunities. If you need such accommodations, please contact the Office of Disability Services at (703) 993-2474.

**Inclement Weather Policy:**

We will operate in accordance with official university decisions about inclement-weather cancellations. Please check GMU website or the information line 703-993-1000. If class is cancelled then the schedule of subjects and assignments may need to be changing.

**COURSE GRADING**

You may earn up to 1000 points during the length of this class. The grading breakdown is given below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Deliverable</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>1) Midterm Exam (in-class)</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>2) Take-home Final Exam</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>3) Mini Data Assignments(^1) (4 of 5)</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>4) Class Participation</td>
<td>50</td>
</tr>
<tr>
<td>Team</td>
<td>Data Analysis Project</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1000</td>
</tr>
</tbody>
</table>

**** All grades (Assignments and Exams) are final within two weeks of them being posted. There will be no adjusting of any grades two weeks after the grade is posted.****

**Final grades will be assigned strictly based on the following scale:**

- \( \geq 930: \) A
- \( 890-929: \) A-
- \( 870-899: \) B+
- \( 830-869: \) B
- \( 800-829: \) B-
- \( 770-799: \) C+
- \( 730-769: \) C
- \( 700-729: \) C-
- \( < 700: \) F

**NOTE ABOUT GRADES**

- Grades will be accessible by Blackboard only.
- For your security, grades will not be provided by phone or email.
- Grades are **not negotiable**. Students with extenuating circumstances which require them to receive a certain grade or maintain a particular GPA (e.g., graduation, loss of a scholarship, University probation or suspension, loss of a job offer, revocation of student Visa, etc.) need

\(^1\) Class time will be allocated for you to work on these problems and solve them (if you choose to utilize that time)
to realize that they are responsible for working hard to achieve the needed class grade. Exceptions will not be made for individual students.

- Grades can be changed only if I have made an input or calculation error. It is important that you check your class grades and immediately notify me of any discrepancies.

**GRADING COMPONENTS**

**Individual Component**

*Midterm Exam*

The mid-term exam will be an in-class exam. The exam will comprise of a few short answer essay questions based on lectures, class discussions, assigned readings, data analyses, and any other material used in the course. This in-class exam will not require any software, but will need you to use a calculator and interpret tables/results.

*Final Exam*

The final exam will be a take-home exam. The exam will comprise of solving data-sets and providing managerial inferences from those datasets. These problems will involve using the assigned software (SPSS and Tableau) and showing expertise in the methods covered in class.

*Final Project*

The project will involve design of short market research study, data collection, data analysis, and short report. The project can address one of four major topics: regression model applications, customer choice, market segmentation, or ideal design of a new product concept. Please see project outline at the end of the syllabus. Students are encouraged to meet with the instructor at various stages of the project to ensure that they are on track.

**A Note about Emergencies and Exam/Quiz Dates:**

Make-up exams will only be given in case of an emergency or official university travel. I will require written proof to allow for make-up exams. If you happen to miss an exam/quiz without an excused absence, you will be assigned zero points. If you know that you will miss an exam, it is your responsibility to inform me via email or voice mail BEFORE the exam. I reserve the right to determine the nature and date of the make-up exam.

**Team Component**

Each team should ideally consist of 3 or 4 students. Each team should provide me with the name of its members on a sheet of paper or via email no later than the third week of the semester (Feb 8th, 2018). Individuals who fail to form a team by the designated date will be either grouped together or assigned to other teams.
At the end of the semester each team member will get an opportunity to evaluate other members of the team. This peer evaluation will be used to identify contribution of each team member as perceived by other member of the team. If a team member is consistently rated poorly for inadequate contribution by other members, points will be deducted from his/her team assignment score. Final group assignment grades will be individually adjusted using the following system:

- Each student will be required to turn in an evaluation form at the end of the semester class presentation (will be made available on the course website).
- The evaluation form consists of five 5-point rating scale questions, with ratings that range from 5 for “Strongly Agree” to 1 for “Strongly Disagree”. For each group member you rate, the scores for each question will be added and a total score computed. The minimum score is obviously 5 with a maximum score of 25. Remember that you have to evaluate your own effort to the group project also.
- All evaluation scores for each student will be averaged. For example, in a four member group, each student will get four total evaluation scores. These four total evaluation scores will be averaged to arrive at an “Average Evaluation Score” that ranges from 5.0 to 25.0.
- If no peer evaluation is turned in by an individual, then I will assume that according to that individual all team members have performed equally.
- If you are rating someone poorly, you will have to provide a detailed explanation of why the individual received a poor grade on specific evaluation criteria.
- The final group assignment grade each student will receive is based on the total group grade (0 to 100 points) multiplied by a “Group Assignment Adjustment Multiplier” based on the following conversion table.

<table>
<thead>
<tr>
<th>Average Evaluation Score</th>
<th>Group Assignment Adjustment Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.5 or higher</td>
<td>1.00</td>
</tr>
<tr>
<td>20.5 to 22.4</td>
<td>0.90</td>
</tr>
<tr>
<td>17.5 to 20.4</td>
<td>0.80</td>
</tr>
<tr>
<td>15.5 to 17.4</td>
<td>0.75</td>
</tr>
<tr>
<td>13.5 to 15.4</td>
<td>0.70</td>
</tr>
<tr>
<td>11.5 to 13.4</td>
<td>0.65</td>
</tr>
<tr>
<td>9.00 to 11.4</td>
<td>0.60</td>
</tr>
<tr>
<td>8.9 or lower</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note on peer evaluations: Poor peer evaluations can result in poor grades. As such, every team member should contribute equally and effectively to the team. It is your responsibility to ensure that the quality and quantity of your work is up to the expectations of your team members. To achieve this, it would be a good idea to solicit voluntary feedback from your team member’s mid-way through the project so that you can take any remedial action necessary. Teams that have problematic team members should inform me at the earliest so that corrective action can be taken.

STATUTE OF LIMITATIONS
• Exam grades, project grades, and final grades are non-negotiable and final. Grades will only be changed if the grade results from a mathematical or record-keeping error. It is important that each student frequently checks their class grades and immediately notifies the instructor of any discrepancies that have been discovered. After the posting of grades, you will have ONE WEEK to notify the instructor about any grading issues or errors. After this time period, no corrections or recalculations will be made.

FINAL NOTE:
Changes to the syllabus may be made to reflect the needs of the class. Any changes will be announced in class and/or via Blackboard. It is the students’ responsibility to stay aware of any changes made.
TENTATIVE COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Content</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 25</td>
<td>Thur</td>
<td>Course Overview</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Introduction to Marketing Analytics</td>
<td></td>
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<tr>
<td>Feb 1</td>
<td>Thur</td>
<td>Introduction to SPSS, Data Cleaning, and Data Transformation</td>
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<td></td>
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<td>Descriptive Analysis</td>
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<tr>
<td></td>
<td></td>
<td>Chapter: Cleaning and Transforming Data</td>
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<tr>
<td>Feb 8</td>
<td>Thur</td>
<td><strong>Regression Models - I</strong></td>
<td><strong>Team List Due</strong></td>
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<tr>
<td></td>
<td></td>
<td>*Course Pack: Multiple Regression and Marketing Mix Models</td>
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<tr>
<td></td>
<td></td>
<td>*Chapter: Simple and Multiple Regression (Ch. 4)</td>
<td></td>
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<tr>
<td>Feb 15</td>
<td>Thur</td>
<td><strong>Regression Models - II</strong></td>
<td>Assignment 1 Due</td>
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<tr>
<td></td>
<td></td>
<td>*Chapter: Simple and Multiple Regression (Ch. 4)</td>
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<tr>
<td>Feb 22</td>
<td>Thur</td>
<td><strong>Conjoint Analysis</strong></td>
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<td>*Course pack: Conjoint Analysis: A do-it yourself guide</td>
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<td>*Chapter: Conjoint Analysis (Ch. 6)</td>
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<tr>
<td>Mar 1</td>
<td>Thur</td>
<td><strong>Case #1: Portland Trailblazer Case</strong></td>
<td>Assignment 2 Due</td>
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<td></td>
<td></td>
<td>Conjoint Analysis</td>
<td></td>
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<tr>
<td>Mar 8</td>
<td>Thur</td>
<td><strong>Choice Models</strong></td>
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<td>*Course pack: Logistic Regression</td>
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<td></td>
<td></td>
<td>*Chapter: Multiple Discriminant and Logistic Regression (Ch. 7)</td>
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<tr>
<td>Mar 15</td>
<td>Thur</td>
<td>Spring Break</td>
<td></td>
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<tr>
<td>Mar 22</td>
<td>Thur</td>
<td><strong>EXAM</strong></td>
<td>Assignment 3 Due</td>
</tr>
<tr>
<td>Mar 29</td>
<td>Thur</td>
<td><strong>Customer Lifetime Value</strong></td>
<td></td>
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<td></td>
<td></td>
<td>*Course Pack: Customer Profitability and Lifetime Value</td>
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<td></td>
<td></td>
<td>*Case #2: Virgin Mobil</td>
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<tr>
<td>Apr 5</td>
<td>Thur</td>
<td><strong>Market Segmentation</strong></td>
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<td></td>
<td></td>
<td>*Course pack: Cluster analysis for segmentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Chapter: Grouping Data and Cluster Analysis (Ch. 9)</td>
<td></td>
</tr>
<tr>
<td>Apr 12</td>
<td>Thur</td>
<td><strong>Case #3: Fashion Channel</strong></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Cluster Analysis</td>
<td></td>
</tr>
<tr>
<td>Apr 19</td>
<td>Thur</td>
<td><strong>Visualization I</strong></td>
<td>Assignment 4 Due</td>
</tr>
<tr>
<td>Apr 26</td>
<td>Thur</td>
<td><strong>Visualization II</strong></td>
<td></td>
</tr>
<tr>
<td>May 3</td>
<td>Thur</td>
<td>FINAL PROJECT WORK DAY</td>
<td>Assignment 5 Due</td>
</tr>
<tr>
<td>May 10</td>
<td>Thur</td>
<td>Final Exam Due before class starts</td>
<td></td>
</tr>
</tbody>
</table>

*Please bring your laptop to each class. You will work with your teams to complete the in-class data analysis. These questions will prepare you for the team data assignment and therefore it is beneficial to attend these classes and practice these technique*
Final Project Outline

You can use a dataset that is already available online (through websites like GitHub) or you can collect primary data. Using available datasets online has benefits, but typically a lot of work has to be done cleaning the dataset. On the other hand, collecting primary data is going to take time, but there is minimal cleaning of data required. Teams should first make a decision as to which of these options best suits their needs and then inform the instructor of their choice. If you are using primary data (i.e., data collected by you for the research question at hand), please follow the following steps (if you are using online datasets, you typically start at Step 7, but spend a lot of time on it).

Step 1: Decide product or service category which you want to analyze (it can be fictional)

Step 2: Become brand manager of a brand (hypothetical or real).
Assume position of a brand manager of a brand either currently being offered in the product category or that of a hypothetical brand that you wish to launch in this market.

Step 3: Decide the type of analysis you want to perform?
You can choose one from the following analysis
1. Segmentation and Targeting analysis (Cluster analysis, Discriminant analysis)
2. New product analysis (Conjoint analysis)
3. Customer choice and customer value (Logistic regression, CLV)
4. Regression models (sales forecasting, advertising ROI, etc)

Step 4: Decide on data requirements for analysis.
Use the following table to get an idea of type of information needed (this table is valid only for segmentation, targeting, positioning and conjoint analysis)

<table>
<thead>
<tr>
<th>Data On</th>
<th>Segmentation and Targeting</th>
<th>Regression Models</th>
<th>New Product Design (Conjoint)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of Attributes (Needs)</td>
<td>Yes</td>
<td>Maybe</td>
<td></td>
</tr>
<tr>
<td>Descriptors (Demographics/Lifestyles)</td>
<td>Yes</td>
<td>Maybe</td>
<td></td>
</tr>
<tr>
<td>Perceptions of Brands on Attributes</td>
<td></td>
<td>Maybe</td>
<td></td>
</tr>
<tr>
<td>Preferences of Brands</td>
<td></td>
<td>Maybe</td>
<td></td>
</tr>
<tr>
<td>Preferences for Attribute Bundles</td>
<td></td>
<td>Maybe</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Step 5: Design survey for data collection.
The good old paper based survey is always an option. You can also use any web-based survey option (e.g., SurveyMonkey)

Step 6: Sample size and data collection process.
Required Sample Size: 50 completed usable responses. You can collect data from anybody except your pets. The idea is not the representativeness of the sample but understanding of the data collection process.

**Step 7: Data coding and cleaning.**

**Step 8: Analyze the data using relevant data analysis steps showed in class.**

**Step 9: Write a short report (4-5 pages) on the study.**
General issues that you will address are as follows.
1. What was the decision problem?
2. Which type of data was collected?
3. How the data was collected?
4. Which specific analyses were performed?
5. Insights generated on the basis of analyses.
6. What decisions are being recommended?

Topic specific issues that you will address are as follows.
1. Segmentation and Targeting Study
   a. Number of different segments in the market and description of each segment
   b. Profile of each segment in the market
2. New Product Study (Conjoint)
   a. How and why different bundles were created?
   b. What were the competing offerings?
   c. Which new bundle you decide to offer in the market?
   d. How will this bundle compete relative to the existing offerings?
3. Customer choice and customer value
   a. Accuracy of prediction models
   b. Identification of all the relevant predictors
   c. What is the value of each customer segment
4. Regression Models
   a. Predict new product sales or existing product sales using right variables
   b. Develop a best fit model

**Report Format**
1. 5 pages, double spaced, 12 font size, single space (not including appendices)
2. Summary of decision problem and recommendation on first page.
3. Email me the data file used for analyses.
4. Include Questionnaire as an appendix.

**Sample Research Questions:**
1) Predict sales for a new app
2) Predict probability that someone is going to go to a Capitals home-game
3) Segment the market of craft beer drinkers
4) Develop a new running shoe for Nike based on consumer preferences with regards to new product attributes.
5) What is the ROI of advertising for a P&G