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# University of Guelph

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Department of Marketing and Consumer Studies  
Marketing Analytics: MCS\*3500, Fall 2017

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**Instructor:** Dr. Towhidul Islam, Professor  
**Office:** MINS 206B  
**Tel:** 519 824 4120 Ext. 53835, [islam@uoguelph.ca](mailto:islam@uoguelph.ca)  
**Office Hours:** Mondays 5:30 –7:00 pm, Thursdays 5:30 – 7:00 pm or by appointment.

**Lecture:**

**Section 1:** Mondays 7:00 – 9:50 pm, Room: MACS 209  
GTA: Yi Chen (Sophia) & Tan Qianyi (Jennifer)  
GTA hours: Wednesdays 1:00 – 2:30 pm, Room MINS 210

**Section 2:** Thursdays 7:00 – 9:50 pm, Room: MACS 209  
GTA: Mohammad Akbar  
GTA hours: Mondays 11:30 – 1:00 pm, Room MINS 208

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## Course Description and Objectives

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This course teaches methods of analysis that support decision making in the marketing discipline. Topics include reviews of data descriptions and visualization, market response models, perceptual mapping and brand positioning, marketing segmentation and targeting, market basket analysis and new product design and choice analysis. The main objectives are (a) develop your ability to make decisions using analytical tools and sound research; (b) translate analytical findings into strategic decision making; (c) become an intelligent users of available analytical tools and techniques. In this course, you will learn how to analyze marketing data to help make policy and strategic decisions. Specifically, we will use freely available R-Studio to learn how to use different analytical tools and interpret the results.

**Required Text:** Chapman, C. and Feit, E. M. (2015), R for Marketing Research and Analytics, Springer.  
Data and R-codes available at: <http://r-marketing.r-forge.r-project.org/data.html>

**Software:** R-Studio (Freely available). Bring laptop in class with R-Studio installed.  
<https://cran.r-project.org/> and <https://www.rstudio.com/>

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## Evaluation Procedure:

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<b>Midterm</b>	30%
Short answer and interpretation of research output type questions (more details will be available during semester)	

<b>Class Participation and Class Works</b>	10%
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<b>Assignments</b> * (max. 3 students per group) 4 out of 5 assignments	60%
We will replicate analysis using text book data during class. You will be assigned to do similar analysis and provide insights using a different data set.	

1: Data Visualization and Linear Models	15%, due on week 5
2: Perceptual Mapping and Brand Positioning	15%, due on week 7
3: Market Segmentation and Targeting	15%, due on week 9
4: Market Basket Analysis	15%, due on week 12
5: Consumer Choice and Choice Models	15%, due on Dec 11

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\* Individual mark will be assigned from your group mark after adjusting evaluations from peers and GTAs.

## Class Schedule

Weeks	Module	Lectures and Exercises
<b>Week 1:</b> Sec1: Sept 11 Sec2: Sept 7	<b>Introduction and Course Overview</b>	<ul style="list-style-type: none"> <li>○ Course Overview</li> <li>○ Academic Integrity</li> <li>○ Introduction to R &amp; Installation of R-Studio</li> </ul>
<b>Week 2:</b> Sec1: Sept 18 Sec2: Sept 14	<b>Describing Data &amp; Relationship between Variables</b>	<ul style="list-style-type: none"> <li>○ Describing Data</li> <li>○ Relationships between Continuous Variables</li> <li>○ Readings: Chapter 3 &amp; 4</li> </ul>
<b>Week 3:</b> Sec1: Sept 25 Sec2: Sept 21	<b>Linear Regression Models</b>	<ul style="list-style-type: none"> <li>○ <u>Substantive topic</u>: Identifying Drivers of Outcome (Response) Variables</li> <li>○ <u>Methodology</u>: Linear Regression Models</li> <li>○ Readings: Chapter 7</li> </ul>
<b>Week 4:</b> Sec1: Oct 2 Sec2: Sept 28	<b>Reducing Data Complexity:</b> Perceptual mapping and brand positioning	<ul style="list-style-type: none"> <li>○ <u>Substantive topics</u>: Perceptual Mapping &amp; Brand Positioning</li> <li>○ <u>Methodologies</u>: Principal Component Analysis, Exploratory Factor and Multidimensional Scaling</li> <li>○ Readings: Chapter 8</li> </ul>
<b>Week 5:</b> Sec1: Oct 16 Sec2: Oct 5		
<b>Week 6:</b> Sec1: Oct 23 Sec2: Oct 12	<b>Market Segmentation:</b> Clustering and Classifications	<ul style="list-style-type: none"> <li>○ <u>Substantive topics</u>: Market Segmentation &amp; Targeting</li> <li>○ <u>Methodologies</u>: Different Types of Clustering and Classifications</li> <li>○ Readings: Chapter 11</li> </ul>
<b>Week 7:</b> Sec1: Oct 30 Sec2: Oct 19		
<b>Week 8:</b> Sec1: Nov 6 Sec2: Oct 26	<b>MIDTERM</b>	
<b>Week 9:</b> Sec1: Nov 13 Sec2: Nov 2	<b>Market Basket Analysis</b>	<ul style="list-style-type: none"> <li>○ Analysis of Market Basket or Transaction Data</li> <li>○ <u>Metrics</u>: Association Rules – Support, Confidence &amp; Lift</li> <li>○ Readings: Chapter 12</li> </ul>
<b>Week 10:</b> Sec1: Nov 20 Sec2: Nov 9		
<b>Week 11:</b> Sec1: Nov 27 Sec2: Nov 16	<b>Consumer Choice &amp; Choice Modeling</b>	<ul style="list-style-type: none"> <li>○ <u>Substantive Topics</u>: New Product Design and Service; Product Modifications</li> <li>○ <u>Methodologies</u>: Choice Experiments and Choice Models</li> <li>○ Readings: Chapter 13</li> </ul>
<b>Week 12:</b> Sec1: Dec 1 Sec2: Nov 23		

### Academic Integrity

University of Guelph places emphasis on academic integrity. Plagiarism and other forms of academic dishonesty will be dealt with the official policies of the university. I will be holding you, as a student, to a high standard of integrity and professional conduct.

### University Grading Scheme:

This course follows the University grading scheme outlined in the University Calendar:

A+	90-100%	<b>Excellent:</b> An outstanding performance in which the student demonstrates a superior grasp of the subject matter, and an ability to go beyond the given material in a critical and constructive manner. The student demonstrates a high degree of creative and/or logical thinking, a superior ability to organize, to analyze, and to integrate ideas, and a thorough familiarity with the appropriate literature and techniques.
A	85-89	
A-	80-84	
B+	77-79	<b>Good:</b> A more than adequate performance in which the student demonstrates a thorough grasp of the subject matter, and an ability to organize and examine the material in a critical and constructive manner. The student demonstrates a good understanding of the relevant issues and a familiarity with the appropriate literature and techniques.
B	73-76	
B-	70-72	
C+	67-69	<b>Acceptable:</b> An adequate performance in which the student demonstrates a generally adequate grasp of the subject matter and a moderate ability to examine the material in a critical and constructive manner. The student displays an adequate understanding of the relevant issues, and a general familiarity with the appropriate literature and techniques.
C	63-66	
C-	60-62	
D+	57-59	<b>Minimally acceptable:</b> A barely adequate performance in which the student demonstrates a familiarity with the subject matter, but whose attempts to examine the material in a critical and constructive manner are only partially successful. The student displays some understanding of the relevant issues, and some familiarity with the appropriate literature and techniques.
D	53-56	
D-	50-52	
F	0-49	<b>Fail:</b> An inadequate performance.