

**Commerce 4MI3
MARKETING ANALYTICS
Winter 2021 Course Outline**

**Marketing Area
DeGroote School of Business
McMaster University**
January 5, 2021

COURSE OBJECTIVE

This course builds upon material covered in Commerce 2MA3 - Introduction to Marketing and is intended to complement and build on Commerce 3MA3 – Marketing Research. The objective of the course is to illustrate how to execute a systematic and analytical approach to marketing decision-making that benefits both the seller and buyer alike. An analytical approach will enable marketing managers to:

- Understand how the ‘first principles’ of marketing helps firms organize the analytical opportunities and challenges in a modern data driven era, and
- Use and execute data analytic techniques through case studies and an interactive environment. This will illustrate marketing analytics problems in a scientific and process-driven manner using a hands-on experience.

Most of the frameworks, processes, and analyses developed by marketing researchers, consultants, and managers are focused on solving at least one of the four fundamental marketing problems:

- All customers differ,
- All customers change,
- All competitors react, and/or
- All resources are limited.

This course is designed to illustrate the analytical methods used to address each of the challenges above. Using the relevant marketing frameworks, processes, and analyses to solve each of these four underlying marketing problems is termed the ‘first principles’ of marketing. The focus of this course is illustrating how analytical models can be used to solve the 4 marketing problems above. This course builds on the topics explored in 2MA3 & 3MA3 by focusing on specific marketing strategies (e.g., segmenting & targeting customers, building customer loyalty, etc.) and critical marketing tools/processes (e.g., cluster and factor analysis, choice models, etc.) in greater detail and accentuating the integrative nature of the marketing function through the development of a marketing plan.

INSTRUCTOR AND CONTACT INFORMATION

Section 1: Friday, 2:30 PM - 5:20 PM, EST

Xiao Ling
Instructor

Student TA
Ahzam Ali

Office Hours: By Appointment

Office Hours: By Appointment

Email:
lingx4@mcmaster.ca

Email:
alia80@mcmaster.ca

Course Website: <http://avenue.mcmaster.ca> (Avenue to Learn – A2L)

COURSE ELEMENTS

Credit Value:	3	Leadership:	No	IT skills:	Yes	Global view:	No
A2L:	Yes	Ethics:	No	Numeracy:	Yes	Written skills:	Yes
Participation:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Evidence-based:	Yes	Experiential:	Yes	Final Exam:	No	Guest speaker(s):	No

COURSE DESCRIPTION

Marketing departments are increasingly utilizing data routinely collected by their organizations to improve marketing decision making and more effectively allocate resources. This course will familiarize students with the tools used to convert raw data into valuable marketing insights. The course offers a hands-on, practical approach, giving students the opportunity to become familiar with data analysis tools. The course will emphasize both inference and prediction and highlight the trade-offs associated with different marketing analytics methods.

LEARNING OUTCOMES

Upon succeeding in this course, students will be able to complete the following tasks:

- Execute and interpret a factor analysis, cluster analysis, and classification analyses to better understand how to manage customer heterogeneity by segmenting and targeting buyers.
- Understand how choice model analysis can inform customer preferences and improve customer lifetime valuation estimates.
- Execute and interpret a conjoint analysis study with application to new product design.
- Use a response model to improve marketing resource allocation decisions.

COURSE MATERIALS AND READINGS

Required:

Course Materials Are Available on Avenue To Learn (A2L)

- <http://avenue.mcmaster.ca>

Required Software:

- **Enginius** by DecisionPro, Inc
- Visit <https://www.enginius.biz/index.php/registration/student/> and use the Student Access Code: N P M F - Q 7 E 7 (It grants you a heavily discounted rate for a six-month subscription.)

Marketing Strategy: Based on First Principles and Data Analytics, 2017.

Robert W. Palmatier, and Shrihari Sridhar. Palgrave Publishing.

Cases: These will come from the required textbook and the Enginius software registration.

Optional:

Principles of Marketing Engineering and Analytics 3rd edition, 2017.

Gary L. Lilien, Arvind Rangaswamy, and Arnaud De Bruyn. DecisionPro, Inc.

- To get the E-version of this optional textbook, use Student Access Code: Q 7 L R - H 6 X 2 when subscribe Enginius (It grants you access to book chapters in addition to the software subscription for \$10 more)

Cutting Edge Marketing Analytics: Real World Cases and Data Sets for Hands on Learning,

2014. Rajkumar Venkatesan, Paul W. Ferris, and Ronald T. Wilcox. Pearson

EVALUATION

Learning in this course results from understanding textbook content and application of concepts to in-class case analysis/presentation, hand-in reports, simulation participation, and tests. The balance of the learning results from lectures on strategic concepts. Work will be evaluated on an individual basis as well as in groups, in which case group members will share the same grade adjusted by peer evaluation and instructor and/or TA observation.

Missed tests/assignments will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. If an assignment can be submitted late, it will be penalized at least 10% each day after the deadline. Total grades will be curved to determine a student's letter grade in this course according to the DSB's grading guidelines. Each component of the grade (see below) will be weighted, and then the weighted components will be added up to get the total weighted score. All total weighted scores will be arrayed into a distribution. Where a student fall in that distribution determines the student's letter grade according to the curve's average grade constraint.

Components and Weights

In-Class Quizzes	Multiple Choice Questions (Individual)	20%
In-Class Case Replications	Case Analysis Summaries (Individual)	30%
Final Written Case Assignment	Final Case Analysis (Group)	30%
Lecture Participation	Lecture Participation & In-class Exercises (Individual/Group)	20%
Total		100%

Note: weights and components are subject to change

Communication and Feedback

Students who wish to correspond with the instructors or TAs via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants. Instructors are required to provide evaluation feedback for at least 10% of the final grade to students prior to Week #9 in the term. Instructors may solicit feedback via an informal course review with students by Week #4 to allow time for modifications in curriculum delivery.

Course Deliverables

In-Class Quizzes (20%)

In-class quizzes are implemented using short multiple-choice question tests. These questions will focus on the content covered in class lectures but may also involve content in the textbook. **Make-up Policy:** Students are expected to take the quizzes at the scheduled class time. If a student has a documented medical problem or personal/family emergency and inform the instructor in advance of the quiz, he/she will be given a make-up quiz. Students may make-up a quiz due to a religious holiday with advance notice. If a student misses a quiz without prior notice and without proper documentation, he/she will receive a score of zero on that quiz.

In-Class Case Replications (30%)

Students will be solving several cases throughout the term and have an assignment related to each of them. *It is imperative that you read the cases before beginning the assignment.* These will either be a case related quiz, or a typed response to the discussion questions. The written response should include 2 – 5 sentences for each question, and/or two-thirds of a page maximum (refer to format instructions below). The Instructor will distribute case discussions which will involve active participation from all students. Students should turn in the analysis output from the case discussion – both the excel file and the written response. Students that miss the assignment deadline can use an MSAF to avoid losing marks but will be responsible for getting the missed course information from a peer. If an MSAF is used the grade will be calculated based on the other case replication assignments submitted.

The written responses should be submitted in the form of a Word or PDF document. These will be due at 11:59pm the day the case is discussed in class. Students are expected to learn by observing and replicate how the Instructor solves the case in the video. Please upload the assignment to the correct Dropbox on Avenue (A2L). The format should be as follows:

- Centered in the Header: Student name(s), date, and the case title.
- Unless otherwise stated: 1-inch margins, Times New Roman font, 12-point size, & single-spaced.
- The typed 2 – 5 sentences for each question, and/or two-thirds of a page maximum should answer the discussion questions. The focus should be what you learned from the analysis (i.e. the insight regarding the solution to the business problem, etc.).
- Analysis output (i.e. the replicated Excel file) pertaining to each topic discussed in the case should be included at the end of the case summary (no page/tab limit). Please submit a single Excel file, with multiple well labelled tabs. Finally, the replicated analysis should aim to utilize different numeric values from those presented in the case (the Instructor will point out when this is or isn't possible).
- Please keep the file name length to a minimum. For example, instead of submitting a file labelled 'Case 1 – Regression analysis – NAME.docx' instead label the uploaded file as '.docx' and '.xlsx'. Avenue will include your relevant information to the file names when the Instructor or TA download them.

Lecture Participation (20%)

Participation will be evaluated based on attendance, class discussion and in-class exercises. Each student is encouraged and expected to contribute regularly to lecture, class discussion, etc. as called upon by the instructor or the TA, as well as on a voluntary basis. To a substantial extent, the benefit you derive from the course is related to your willingness to respectfully expose your viewpoint to the critical judgement of the class, and to your active participation in building upon the ideas of others. It is, therefore, imperative that you prepare for each class.

An online video platform will be utilized to conduct class lectures, discussions, etc. Details will be posted on A2L. You are supposed to turn on your video to get full attendance score in an online class. When setting up your virtual video software please keep the following in mind:

- Please use the name shown on A2L. If you would like to be called upon by a different name, please include it in parentheses. For example: Stu (James) Dent has a first name Stu, last name Dent on Avenue but would like to be referred to as James in class.
- Please check A2L and set up the virtual video conferencing software on your computer.
- Check that your audio and video are properly working before each class meeting.
- **Plan to participate using both audio and video throughout the entire virtual lecture, discussion, etc. Any time video is not working the student should let the Professor know before the start of class (please not during).**
- Please check the background and ensure that anything visible is appropriate for a Professional setting (e.g. ensure that the camera cannot see into a bathroom) and use a Virtual Background or sit with a neutral background (e.g. a wall) when possible.
- It will be convenient to use 2 monitors to work on assignments and participate in the virtual classes at the same time. This is not required, just a suggestion.
- All synchronous sessions will be recorded.

Final Written Case Assignment (30%)

The Final Written Case Analysis is due **April 8 2021 by 4:30pm**. Each group of 5 – 6 will read, analyze, and write up a case analysis. The case along with a more detailed description of the assignment will be distributed around week 10 – refer to the course schedule at the end of the outline. Please keep in mind that each group will only receive credit for analysis in the submitted Excel file. Some general notes to keep in mind:

- The Final Written Case Analysis should be submitted by a single group member to Avenue. A hard copy is not required. The write-up should be submitted in PDF format. This means that all reports should be *typed* and *edited carefully*.
- The Case Analysis should be typed using 12 point Times New Roman font. 1 inch margins should surround any text or images in the body of the report and page numbers should be utilized. Additional instructions provided on A2L. Double spaced and 10 – 13 pages in length.
- Group member evaluation forms are required and due the same day by 11:59pm. These will represent ~3% of the assignment grade. Regardless of how the evaluation is filled out (individually or as a group) it must be submitted to Avenue by each student. Evaluations that are submitted after the due date will be taken into consideration but will not earn any marks.

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the *Academic Integrity Policy*, located at:

www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations

AUTHENTICITY/PLAGIARISM DETECTION

In this course we will be using a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. Students will be expected to submit their work electronically either directly to Turnitin.com or via Avenue to Learn (A2L) plagiarism detection (a service supported by Turnitin.com) so can be checked for academic dishonesty. Students who do not wish to submit their work through A2L and/or Turnitin.com must still submit an electronic and/or hardcopy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com or A2L. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). To see the Turnitin.com Policy, please go to;

www.mcmaster.ca/academicintegrity.

ONLINE COURSE COMPONENTS

In this course we will be using Avenue to Learn. Students should be aware that when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure.

If you have any questions or concerns about such disclosure, please discuss this with the Instructor.

REQUESTING RELIEF FOR MISSED ACADEMIC WORK

Students may request relief from a regularly scheduled midterm, test, assignment or other course components. Please refer to the policy and procedure on the DeGroote website at the link below:

<http://ug.degroote.mcmaster.ca/forms-and-resources/misled-course-work-policy/>

STUDENT ACCESSIBILITY SERVICES

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make an appointment with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca.

For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>

*ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL
OBSERVANCES (RISO)*

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students requiring a RISO accommodation should submit their request, including the dates/times needing to be accommodated and the courses which will be impacted, to their Faculty Office normally within 10 days of the beginning of term or to the Registrar's Office prior to their examinations. Students should also contact their Instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

<https://multifaith.mcmaster.ca/riso>

POTENTIAL MODIFICATION TO THE COURSE

The instructor reserves the right to modify elements of the course during the term. There may be changes to the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your continued enrolment in Commerce 4MI3 will be considered an implicit acknowledgement of the course policies outlined above, and any other course policies announced during lecture and/or on A2L. Please do not keep any recordings of the lecture or discussion past the end of the semester through any means except written notes. Do not upload any Instructor content – including recordings, lectures, cases, etc. – to any electronic distribution system (public or private). **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course. It is your responsibility to ask for clarification on any policies that you do not understand

COURSE SCHEDULE

**Commerce 4MI3
Marketing Analytics
Winter 2021 Course Schedule**
(Subject to Change)

WEEK	DATE	LECTURES AND ASSIGNMENTS
1	Jan. 15	<p>Topics:</p> <ul style="list-style-type: none"> • Introduction and Course Overview • Group Formation <p>Read:</p> <ul style="list-style-type: none"> • (MS): Chapter 1 – First Principles of Marketing (pg. 9-26)
2	Jan. 22	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 2 – Managing Customer Heterogeneity <p>Case Demonstration:</p> <ul style="list-style-type: none"> • Factor & Cluster Analysis (MS Ch. 2): <ul style="list-style-type: none"> ➤ MeXL – Dentmax Case (MS pg. 65-74) ➤ Case Replication Due <p>Assignment:</p> <ul style="list-style-type: none"> • Group details due by the end of the day.
3	Jan. 29	<p>Case Demonstration:</p> <ul style="list-style-type: none"> • Positioning Maps (MS Ch. 2): <ul style="list-style-type: none"> ➤ MeXL – Infiniti Case (DecisionPro website) ➤ Case Replication Due <p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 3 – Managing Customer Dynamics <p>Quiz 1</p>

4	Feb. 5	<p>Case Demonstration:</p> <ul style="list-style-type: none"> • Choice Models and Logistic Regression (MS Ch. 3) <ul style="list-style-type: none"> ➤ MeXL – TKL Case (MS pg. 107-114) ➤ Case Replication Due <p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 4 – Managing Sustainable Competitive Advantage
5	Feb.12	<p>Group Discussion and Q&A</p> <p>In-class assignment</p>
6	Feb.19	<p>No Class – Mid-term Recess</p>
7	Feb. 26	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 6 – Managing Offering-based Sustainable Competitive Advantage <p>Case Demonstration:</p> <ul style="list-style-type: none"> • Conjoint Analysis (MS Ch. 6) <ul style="list-style-type: none"> ➤ MeXL – Exteriors Case (MS pg. 141-157) ➤ Case Replication Due <p>Quiz 2</p>
8	Mar. 5	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 6 – Launching and Diffusing Innovation Strategies <p>Case Demonstration:</p> <ul style="list-style-type: none"> • Bass Model Demonstration (MS Ch. 6) <ul style="list-style-type: none"> ➤ MeXL – Ford Hybrid Car (DecisionPro website) ➤ Case Replication Due

9	Mar. 12	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 7 – Managing Relationship-based Sustainable Competitive Advantage • Customer Lifetime Value <p>In-class Exercise</p> <p>Quiz 3</p>
10	Mar. 19	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 8 – Managing Resource Trade-offs <p>Case Demonstration:</p> <ul style="list-style-type: none"> • Response Model Analysis (MS Ch. 8) <ul style="list-style-type: none"> ➤ MeXL - BRT Tribune Case (MS pg. 247-256) ➤ Case Replication Due <p>Final Case Distributed</p>
11	Mar. 26	<p>Lecture:</p> <ul style="list-style-type: none"> • (MS): Chapter 9 – Overview of Marketing Principles’ Problems and Solutions <p>Case Demonstration:</p> <ul style="list-style-type: none"> • Multivariant Regression • Sentiment Analysis <ul style="list-style-type: none"> ➤ Case Replication Due
12	Apr. 2	<p>No Class - Good Friday</p>
13	Apr. 9	<ul style="list-style-type: none"> • Quiz 4 • Final Project Group Discussion <p>Written Final Case Analysis Due – April. 14, 2021 by 4:30pm.</p>