

Digital Marketing & Web Analytics Syllabus - Spring 2021

(subjective to change due to COVID-19)

Instructor: Dr. Ming Chen

Class hours: MKTG3220-001, M/W, 2:30 pm – 3:45pm (Jan 20 – May 05, 2021)

Where: Online

Office hours: by appointment (send via email)

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Course Description and Objectives

This is an undergraduate course in Marketing Analytics. With the technological advances, it is essential and imperative to understand the capabilities of the most commonly-used analytical tools in order to make informative decisions. This course covers important techniques in marketing analytics with a focus on marketing analytics applications. This course is structured on analyzing data through case studies and hands-on exercises either as homework/assignments or in-class exercises. Key concepts will be learned from a variety of activities including lectures, class discussions of assigned cases, individual exercises and a team project. This course would be found helpful for students who are interested in learning analytic techniques with emphasis on digital marketing aspect.

The covered analytical skills and methodologies include:

- Descriptive analysis
- Data visualization in Excel
- Data mining and statistical methods:
 - Data summary and search trend analysis
 - Forecast new product sales
 - Market segmentation
 - Data visualization
 - Predictive analysis using Machine Learning method

Required Course Materials

- **Required Textbook:** “Marketing Analytics: Data-Driven Techniques with Microsoft Excel,” by Wayne L. Winston. Publisher: Wiley, ISBN: 978-1118373439.
- **Case reading:** most cases covered in this class would be provided by the instructor and will be posted on Canvas before class
- **Lecture notes:** lecture notes for each session of the class will be posted after the class on Canvas. Additional press articles, assigned reading, links to video and other supplementary materials will also be available on the course portal.

Recommended Course Materials

- **Recommended but not required reading materials:** As the digital social media landscape moves so fast, there is no required textbook for this course although the following books are recommended for students who are motivated of learning more details about the analytics methodologies:
 - Digital Analytics for Marketing. Marshall Sponder and Gohar Khan.
 - Microsoft Excel 2016 Data Analysis and Business Modeling. Wayne Winston.
 - The essential guide to marketing in a digital world. Rob Stokers

Grading

The following table displays the components contributing the final grade and the corresponding percentage distribution.

Components	Score	Remarks
In-class Contribution	15	Individual/ Team
Homework Assignments (2)	20	Individual
Case Assignments (2)	10	Individual
Midterm Exams (2)	30	Individual
Individual Essay (1)	5	Individual
Group Project Presentation (1)	10	Team
Final Group Project (1)	10	Team
Total	100	

Grading Breakdown

The final course grade will be determined by your total score based on all class activities listed in the table above. There is no (+) and (-) for this course. Once the course grades are released, requests without clear evidence for a change would not be considered. Your course grade will be assigned according to the following groups:

A (92.0% - 100.0%); B (80.0% - 91.9%); C (70.0% - 79.9%); D (60.0% - 69.9%); Fail (Below 60.0%)

Detailed Class Requirements

In-class contribution (15')

Given that analytics in digital marketing is an applied subject, in-class activities such as exercises and/or discussions are essential for learning. Students who attend entire class sessions and well prepare before each session (e.g. reading and homework) and actively participant in-class activities typically receive very high or even full score for attendance and participation.

Homework assignments (20')

There will be two homework assignments during the course of the semester. The specifics about each assignment will be posted on the date listed in the course schedule. These homework assignments seek to reinforce the concepts, theories and methods that are covered in the lectures and case discussions. In addition, some in-class exercises will be given to provide some hands-on experience on the analytical tools.

Assignments can be submitted on time in class or electronically before the scheduled class starts.

Case assignments (10')

This course will cover two cases with each of being carefully selected to provide up-to-date material on the digital marketing analytics landscape. Some of the cases are data-intensive with the purpose of guiding students to learn associated analytical tools and techniques. All students are expected to read all the cases and think about the questions assigned by the instructor before the class. Students are encouraged to involve with the discussion in class and provide meaningful insight from the case study. There will be two case assignments and the main purpose of the case assignments is to evaluate students' understanding of the case background, the depth of the analysis covered in the case and the ability to generate managerial implications or solutions from the case.

Midterm Exams (30')

There will be two midterm exams throughout the semester. The purpose of the midterm exam is to examine to what extent that students understand, comprehend, apply the key concepts, tools and in addition to grasp the necessary skills to solve the real-world problems. Two midterm exam will be worth 15 point each.

Individual Essay (5')

A concise summary of the major takeaways from this course and a reflection upon how they may/may not help advance your career or the organization you work for. This assignment is due prior to the final session.

Group project Presentation (10'): peer evaluation (2') + group presentation (8')

The group project includes two parts: one group presentation and one written part. Groups will be formed voluntarily **before the third week of the semester**. Each group will consist of 4-5 students, depending on the full size of the class. The group project is to develop a marketing plan for a real firm. Students can choose either the firm from the assigned firm list or any firm of your choice. More information about the assigned firms and the case project will be provided. Students will play a real-world role of marketing consultants to synthesize, conduct analysis, interpret and recommend a viable digital marketing strategy for an existing company based on what you've learned in this course.

Group project presentation, accounts for 10' of the final grade, consists two parts. One part is peer evaluation (2') and the second part is group presentation (8', will be the same for each group member). Every group member is expected to participate actively in all aspects of the group exercises. One group member's peer evaluation score will be determined by the average of all the other peer members' evaluations. Every group member will evaluate, at the end of the course, any other group members' performance on a 100-point scale. The rubric of the evaluation sheet will be posted.

Final Group Project (10')

The written part will count for 20' of the final grade and all the group members will have the same grade. The purpose of the group project is to assess your overall understanding of the concepts, analytical skills and technical competence. Again, every group member is expected to participate actively in all aspects of the group exercises and make his/her own contribution although this part is a team project. Details about writing format and other requirements will be provided in class.

Late Submission Policy

In this course, for any of the deliverables (i.e. homework assignment, case assignment), the policy for late submission (late than the predetermined submission deadline) will be deduct half of the total points of that particular deliverable. The final deadline for all the deliverables are the last class.

Attendance

Should students be absent for the class and miss any of the midterm exam, inform the instructor in writing (email) of any legitimate exam time conflicts **at least one weeks** before the exam date. If students miss exam by emergent reasons, it is suggested to contact the instructor right away concerning missing an exam with supporting reasons. Students are responsible for contacting the instructor to make arrangement for the make-up exam if he/she misses the exam because of emergencies. The make-up exams will be only permitted as required by the University Policy and if the grounds for the application are genuine and unavoidable.

For clarification purpose, the following rules are the general guidance to determine the final scores of "Attendance":

- No class missed for non-medical or emergent reasons. The "In-class contribution" score is reduced by 5% per missed class;
- A prior notification to the instructor is necessary if students have to arrive late or leave early; a 5% reduction will occur without any notification;

The following rules are the general guidance to determine the final scores of "Participation":

- Students achieve full participation score by positively contributing to an in-class discussion, raise insightful questions related to a particular topic, and voluntarily answer questions either raised by the instructor or by other students;
- Students who attend each class but not actively contribute to class discussions are expected to receive only 80% of the participation score at the end of the semester.

Academic Integrity

The UNC Charlotte Academic Integrity Policy will be followed. The student is responsible for reading and understanding the policy: Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity. This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity in this course will be stated by the instructor, and are binding on the students. Academic evaluations in this course include a judgment that the student's work is free from academic dishonesty of any type, and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

Belk College of Business Statement of Diversity

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

Disability

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office at Fretwell 230.

Schedule of Topics and Readings

(subjective to change due to COVID-19)

Week	Date	Topic & Reminder ¹	Assigned Readings ²
1	1/20	Course overview and Syllabus	Syllabus
2	1/25	Introduction of Marketing Analytics	
3	1/27	Topic: Summarize Big Data	"Understanding Consumers' Local Search Behaviors", Google (2014)
4	2/1	Topic: Trend Analysis	Textbook: Chapter 1,2,3
5	2/3	Topic: Forecasting New Product Sales	TruEarth Case (will be posted on Canvas) Chapter 27
	2/8-2/13	Spring Break	No Class
6	2/15	Case1: TruEarth Case Hands-on Exercise: Pivot Table	* Case Assignment 1 (out)
7	2/17	Topic: Market Segmentation	Chapter: 26
8	2/22	Case2: Harper Case Hands-on Exercise: Bass Model Sales Forecasting & Solver Maximization	Chapter: 27 * Case Assignment 2(out) * Case Assignment 1 due
9	2/24	Topic: Identify Customers' Needs	Chapter 23
10	3/1	Hands-on Exercise: Customer Segmentation and Cluster Analysis	Chapter 16, 17 *Assignment1 out * Case Assignment 2 due

11	3/3	Midterm- exam 1	
12	3/8	Group Project Topic Discussion with Instructor Midterm exam 1 review	
13	3/10	Topic: Targeting VIP Customers	*Assignment2 (out)
14	3/15	Hands-on Exercise: Predictive analytics using real retailer data	
15	3/17	Topic: Product Design	Textbook: Chapter 29, 30
16	3/22	Hands-on Exercise: Lead Scoring model	Video: "Where are our digital ads really going?" Ted Talk (2014) (11mins)
17	3/24	Topic: Social Media Marketing	*Assignment 1&2 due
18	3/29	Hands-on Exercise: NodeXL Application	Hand-out
19	3/31	Midterm- exam 2	
20	4/5	Group Project Progress Discussion with Instructor Midterm exam 2 review	"Contagious: Why Things Catch on", by Jonah Berger (2013)
21	4/7	Topic: Retailing	Chapter 29, 30
22	4/12	Hands-on Exercise: Collaborative filtering	"Social media are giving a voice to taste buds" "Online Chatter That Moves Markets", WSJ (2012)
23	4/14	Topic: Advertising	Chapter 34, 35, 36
24	4/19	Hands-on Exercise: Measuring Effectiveness of Advertising	
25	4/21	Topic: Internet Marketing	Chapter 42,43
26	4/26	Group presentation Session I	* Peer evaluation due
27	4/28	Group presentation Session II	
28	5/3	Course Review	*Individual Essay due
29	5/5	Final Group Project (written part)	*Final Group Project due

1. Reminders are listed with * in highlight.
2. Assigned readings will be posted one week before the session.
3. Please make sure to have an access to laptop/ computer for each hands-on exercise session.