

Introduction to Web Analytics: MIS6344.001

Spring 2020

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Office: Room 3.430 in SM33

Class Hours: Monday: 1 pm – 3.45 pm

Class Location: Online

Office Hours: Online through Microsoft Teams

TA: Si Xie

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Course Description

The emergence of social and digital media has resulted in unprecedented access to vast amounts of data about products, firms, and consumer behavior. Due to this, some traditional strategies are now completely outdated, others have been deeply transformed, and new strategies are continuously evolving. Today, the fact is that all the core business activities such as new product design, advertising, sales and customer service have been affected.

In this course, we aim to develop an understanding of the different types of data that can be collected from digital channels, and how this data can be used to formulate data driven strategies for the firm in order to optimize their business models, websites and digital marketing initiatives.

Student Learning Objectives and Outcomes

The objectives of the course are:

1. Appreciate different types of digital media and their role.
2. Understand how data drives a firm's deployment of digital media.
3. Learn data analytics techniques to analyze data generated from digital media.

Course Website: On E-Learning

Communication

For any communication, please use E-learning e-mails only. Otherwise, your email may be missed, and you may not receive any response. **The instructor will reply to emails as soon as possible, but sometimes responses may take up-to 3 working days.**

The instructor and the TA will post several announcements during the course of the semester on E-Learning and you are responsible for checking the course website regularly to ensure that you are up-to date with announcements.

Course materials

We will be using several cases and readings. All students are required to purchase these materials. More details about the course material will be specified in class. There is no required textbook for the course.

Student groups

Students are required to form **groups of 4-5 students as per project schedule on e-Learning**. Do not form groups of more than 5. This group must remain the same throughout the semester for all group tasks.

You will be provided with a peer-evaluation form for all group assignments. Any student who does not participate fairly in the group tasks is likely to receive bad peer evaluations from others in the group. In such a case, the score assigned to the student in the group assignments and project will be suitably reduced.

Group Assignments

Several group assignments will be specified during the course of the semester. **All Assignments are due by the specified dates and must only be submitted on the E-Learning site. Direct emails to the instructor or the TA will not be accepted.** We have provided students with the maximum possible amount of time to work on and submit your assignments. **Assignments submitted after the deadline will be considered late and provided a zero. Completing assignments on time is 100% a student responsibility. No make ups will be given for missed assignments.**

From time to time an assignment, or due dates may need to be changed during the semester. Changes in assignments or schedules will be posted on e-Learning. It is the student's responsibility to keep up with the changes that are posted on e-Learning.

Group Project:

Students are required to do a group project. Details about the project will be specified in class and on E-Learning.

Quizzes

To enforce more systematic approach to studying, there will be two quizzes. The quizzes are non-cumulative in their coverage. For each quiz, students will be responsible for making themselves familiar with the materials discussed in the lectures, the lecture slides, all assigned readings and any additional material discussed and/or posted on the E-learning site.

Both the three quizzes will be held in the testing center, and students must register their slots in advance.

A make-up quiz can only be given for medical reasons certified by a doctor. However, such a quiz may be in a different format and would cover the entire syllabus.

Topics

1. **Multiplicity of digital media:** The landscape of digital media and digital analytics.
2. **Customer tracking:** How do firms track customers? How is this tracking data used?
3. **Optimizing owned media:** How do search engines create search results? What implication does this have for a website owner? How can search engine optimization (SEO) be used to optimize websites for discoverability by a search engine?
4. **Optimizing paid media:**

- a. How can search engine marketing (SEM) be used most effectively?
 - b. What is the display advertising ecosystem and how can analytics be used to deploy display advertising most effectively?
5. **Digital Experiments:** How can A/B experiments be designed to harness digital media? How have experiments been used in practice?
6. **Digital media analytics tools:** There are several tools, both free and paid, that are available to collect and analyze digital data. We will study some such tools e.g. Google Analytics and Google Ads etc. We will also study regression analysis techniques to analyze digital data.

Schedule:

- (1) Several assignments will be given as in-class assignments. Students not in class will not be able to submit these assignments and will get a score of 0.
- (2) The schedule provided below is tentative and subject to change at the discretion of the instructor.

Date	Topic	Assignments/Quizzes/Tasks
Jan 13 (Week 1)	Introduction/Search Engine marketing	
Jan 20 (Week 2)	<i>Martin Luther King Day (No Class)</i>	Finalize Group
Jan 27 (Week 3)	Search Engine Marketing	
Feb 3 (Week 4)	Google Ads	SEM HW (Feb 2, 11:59 pm)/Finalize Company for project
Feb 10 (Week 5)	Google Ads	
Feb 17 (Week 6)	Customer Tracking/KPIs/Metrics	Pre-campaign report (Feb 16, 11:59 pm)/
Feb 24 (Week7)	Metrics/Google Analytics	Start Campaign/Google Ads certification deadline (Feb 23, 11:59 pm)
Mar 2	Quiz1	
Mar 9	Google Analytics	Mid project report (at least one week of data) (Mar 8 11:59 pm)
Mar 16	Spring Break	
Mar 23	Extended Spring Break	
March 30	Google Analytics	
April 6	Search Engine Optimization	Post Campaign Report (April 5, 11:59 pm)
April 13	Regression Analysis/Causal Inference	Google Analytics HW (April 12, 11:59 pm)
April 20	A/B experiments	Causal Inference HW (April 19, 11:59 pm)
April 27	Quiz 2 A/B experiments	Google Analytics Certification Deadline (April 26, 11:59 pm)
May 4		A/B experiment HW (May 3, 11:59 pm)

Extra Grade Assignments:

- 1. There are several Google Ads certification assessments available. More information about how to prepare and take the exams for these certifications is available on the link at: <https://support.google.com/google-ads/answer/9029201?hl=en>. Students who complete the requirements for a Google Ads Search and Google Ads Display certification and upload a copy of their certifications on eLearning before 11:59 pm pm on Feb 23, 2019 will get an extra 2 points.

After this deadline, the option of these extra grades will expire.

2. Students who complete the Google Analytics individual qualification (IQ) and upload a copy of their certification on eLearning before 11:59 pm on April 27th, 2019 will get an extra 1 points. After this deadline, the option of this extra grade will expire. More information about how to prepare and take the exam is available on the link:
<https://support.google.com/partners/answer/6089738?hl=en>

Grading Policy:

The grades will be based on performance in quizzes, assignments, group presentations and reports. Late submissions will not be graded.

The grade distribution across different components is as follows:

Two Quizzes	Total of 50%. Each quiz is equally weighted.
Group Project	20% (see more details on e-Learning)
HW assignments	20%
In class Assignments/Quizzes/Class Participation	10%

Grading Criteria

Your course grade will depend on your overall score relative to your peers.

- 1) The students with scores in the 80th percentile and above will get an A grade.
- 2) The students with scores between the 80th and the 55th percentile will get an A- grade.
- 3) The students with scores between the 55th and the 40th percentile will get a B+ grade.
- 4) The students with scores between the 40th and the 25th percentile will get a B grade.
- 5) The students with scores between the 25th and the 15th percentile will get a B- grade.
- 6) The students with scores below the 15th percentile will be decided by the instructor.

Note: The above is an indicative policy and it may be adjusted based on the instructor's discretion.

Other course policies

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor

Extra Credit	None other than the ones specified above
Late Work	Any late assignment will not be graded and awarded zero points
Special Assignments	No assignments will be given to make up for missed assignments etc.
Class Attendance	In person attendance is required in each class

Classroom Citizenship	Students are encouraged to ask questions in class. However, sometimes in the interest of the class, the instructor may ask the students to discuss their doubts outside the class.
Absence for medical reasons	Only absences for medical reasons certified by a doctor will be considered in case of absences for quizzes etc. A prescription is not enough and the doctor must clearly state in their note the dates and reasons for your indisposition. Colds, flu, and headaches are not acceptable excuses for missing class, quiz, or failing to submit an assignment on time.
Students with disabilities	It is the policy and practice at UT Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me during office hours and allow for one-week advance notice. Students with any questions about their eligibility for receiving accommodations should contact the OSA office first.

UT Dallas Syllabus Policies and Procedures:

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.