Overview & Course Description

The purpose of the course is to introduce students to the complex world of technology and data enabled marketing and the vast ecosystem that is contributing to its rapid advancement. While the early applications of digital marketing technology may be credited to digital advertising pioneers such as Google, DoubleClick and Yahoo, the scene today reflects even traditional media (television) channels shifting to digital technologies for media planning and buying and as well for audience targeting.

To a large degree, the overwhelming success of the internet can be attributed to the network’s intrinsic ability to work with data, thus better understanding the needs, attitudes and behavior of its users. This in turn leads to tailoring services and products, fostering innovation on behalf of consumers and businesses and encouraging competition and competitiveness.

Probably one of the most important tools that lead to, and continues to aid, this better understanding is marketing’s use of digital technologies and analytics to improve consumer experiences with every iteration or web interaction; marketing technologies are currently being used by virtually all websites and online services, and knowledge of how digital marketing works is essentially a prerequisite for any online business.

Digital marketing technologies help online assets to accurately deliver the right communications to the right person at the right. Further, it helps determine success against key performance indicators, much in the same way in which a traditional company assesses indicators such as the number of people who enter their store, or anonymously observes and statistically aggregates shopping habits in order to improve customers’ experience.

Digital marketing technologies inform such critical data points as:

- **where** are visitors/audiences coming from (which country and region or city), in order to understand regional preferences
- **which sections** of the website are most visited or which articles are the most read by different demographics
- **how much time do people spend** online and on webpages
- **Was the advertising viewable and if so, how much of it was viewed**
Digital marketing technologies is a key driver of the growth of global markets. Advertising revenue, enabled through digital tools, supports a massive amount of the digital products and services ecosystem.

Marketing technologies are not only used for delivery of communications but they also provide the basic function of measuring or counting so that money can change hands on that basis. For example, digital audience measurement seeks to count, at market level, the size of online audience and the media they use.

Beyond counting, the success and acceptance of digital advertising depends on the ability to validate the delivery of quality ad impressions to an intended audience. Ideally this should be done in a way that can be compared across different media with a high degree of confidence and transparency. In this context, the field of advertising effectiveness takes into account a series of key aspects such as: ad visibility, reaching the desired target audience, correct geography, ensuring brand safety and avoiding delivery fraud. These topics are others which are fundamental to the digital advertising system will be explored during this course.

Course materials will be presented using various instructional strategies such as demonstration, group work, tutorials, and guest lectures from leading digital marketing and technology luminaries. Due to the rapid rate of change in this technological area, the instructor will provide specifications for appropriate texts and supportive material throughout the course.

Class Dates and Times
The class will meet Saturdays from 1pm-4pm as follows:

- February 11
- February 18
- February 25
- March 4
- March 11
- No Class - March 18 (Spring Break)
- March 25
- April 1
- April 8
- April 15
- April 22
- April 29
- May 6th (Final Exam)
Subject Matter Overview:

As mentioned, in this foundational course, students will get a sound overview of the nuances of digital media and advertising, as well as how it the marketplace has evolved over time as standard approaches were introduced into the process.

Students will gain a greater understanding of the different types of digital formats, the commerce ecosystem that drives the usage of these formats, and a review of the companies – both large and small – that comprise this vast and complex digital media ecosystem. Students will gain practical understanding of the way digital advertising campaigns work and the players that are involved. We will explore critical topics such as digital media ad formats, creative capabilities, targeting, campaign optimization, and consumer behavior. Below is a listing of topics to be covered in this course:

• **SEARCH**
  • search technology
    o indexing
    o pagerank
    o SERP relevance and quality prediction beyond pagerank
    o SEO
  • search advertising
    o search advertising ecosystem: AdWords, AdSense, etc
    o mechanics of keyword auctions
    o keyword selection and bidding strategies

• **DISPLAY**
  • ad formats
    o display ads
    o video ads
    o mobile ads
  • ad selection and design
  • ad targeting and delivery
  • ad pricing
  • ad exchanges

• **MOBILE**
  • mobile specific ad formats and technologies
  • location-specific marketing
    o location technologies (iBeacons, geofencing, GPS etc)
    o location specific 5P strategies
• **SOCIAL MEDIA**
  - homophily and influence
  - homophily based strategies
  - influence based strategies
  - viral marketing

• **RECOMMENDER SYSTEMS**
  - Personalization
  - Targeting
  - Broad overview of different algorithms

• **FLEXIBLE PRICING**
  - Dynamic pricing
  - Price discrimination
  - Personalized and Group pricing
  - New methods for automated bidding

**Requirements and Grading**
A student’s overall grade will be calculated as the weighted average of the scores computed according to the following distribution:
1. Class participation 30%
2. Case Analyses and Discussions 30%
3. In-class Workshops 20%
4. Final Exam 20%

**Course norms and expectations**
We will use a variety of lectures in this course, and as such, it is crucial to appreciate that students in the class are co-producers of class discussions and collective learning. For this to happen, class members need to listen carefully to one another and build on prior comments. We will keep track of your contributions towards each class session, and these contributions can include (but are not restricted to) raising questions that make your classmates think, providing imaginative yet relevant analysis of a situation, contributing background or a perspective on a classroom topic that enhances its discussion, and simply answering questions raised in class. A lack of preparation or negative classroom comments or improper behavior (such as talking to each other, sleeping in the class or walking out of the class while the lecture is in progress) will lower this grade. **Cell phones, smartphones and tablets are a disturbance to both students and professors, so these devices must be turned off during each class. Students are expected to arrive to class on time and stay to the end of the class period. Arriving late or leaving class early will have a negative impact on a student’s grade. All these factors will affect the class participation grades.**

No prerequisites are required. This course is designed for anyone looking to gain a foundational understanding of the digital media technologies as applied in industry. Further,
this course will help you better understand the industry, important terminology and tactics used in digital media and give you a practitioner’s view of digital marketing.

Below is a guideline of the different sessions. The exact order will depend on progress made in each session.

• Digital Marketing history and consumer behavior
• Advertising marketing models, from search to programmatic
• The digital ecosystem
• Ad formats and creatives
• Ad serving, targeting and retargeting
• Campaign tracking & optimization
• Media Research and measurement
• Programmatic 101
• Review of Tech Stack in digital advertising
• Review of Digital Channels: Mobile, Video, Social, Email, Native

Guest Speakers and interviews to be held for certain sessions