WEB ANALYTICS

Course Syllabus

1. General Information

Course name: Web Analytics

Course code: MAR

Number of credits: 3

Faculty: Marketing

Instructors:

1. Nguyen Ngoc Anh, Email: , Tel:
2. Vu Viet Tien, Email: , Tel:

2. Course Objectives

This course aims to introduce you to the key concepts of web analytics in the digital marketing/direct marketing discipline and how web analytics can build knowledge of online customer behaviour and campaign effectiveness.

The main objectives of this course are to improve your ability to:

1. Assess market opportunities by analyzing customers, competitors, collaborators, context, and the strengths and weaknesses of a company.
2. Develop effective web analytics strategies to achieve organizational objectives.
3. Design a strategy implementation marketing analytics program to maximize its chance of success.
4. Communicate and defend your recommendations and critically examine and build upon the recommendations of your classmates both quantitatively and qualitatively.

3. Abstract

Web Analytics addresses how to use data analytics to learn about and market to individual customers. Many firms have extensive information about consumers' choices and how they react to marketing campaigns, but few firms have the expertise to intelligently act on such information. In this course, students will learn the scientific approach to marketing with hands-on use of technologies such as databases, analytics and computing systems to collect, analyze, and act on customer information. This is the key part of learning how to take advantage of data. While students will employ quantitative methods in the course, the goal is not to produce experts in statistics; rather, students will gain the competency to interact with and manage a marketing analytics team.

In addition, students will have the opportunity to communicate and defend their recommendations and build upon the recommendations of their peers. We will explore the theory and applications of digital marketing concepts through a mix of cases, discussions, lectures, guest speakers, individual assignments, and group projects. We will draw materials from a variety of sources and settings including services, consumer and business-to-business products.

4. Teaching and learning methods

Lectures:	34h
In class discussion & practice:	10h
Individual reading:	1h
Problem-based learning	

5. **Prerequisites**: Customer Behavior

6. Learning Outcomes

The course learning outcomes are what students should be able to DO by the end of this course if students participate fully in learning activities and successfully complete the assessment items. The learning outcomes in this course also help students to achieve some of the overall course learning goals and outcomes for all of them. Course learning goals are what we want students to BE or HAVE by the time them successfully complete their course. Students demonstrate this by achieving specific course learning outcomes - what they are able to DO by the end of their course.

Learning outcomes describe what students are expected to have learned or achieved; as a result, they usually describe what students will be capable of doing, or what evidence will be provided to substantiate learning.

In overall, the purpose of the course is to introduce students to the digital marketing research literature and to the web analytics process. The emphasis in this course is on how to actually plan and conduct a web analytics project as well as use web analytics as an aid for marketing decisions. In this course, students will learn how to design, interpret, and apply web analytics to solve business and marketing problems.

At the end of this course students will be expected to demonstrate the following some objectives/skills:

- ✓ *Learn how data and digital analytics impacts the marketing practice*
- ✓ *Understand how to implement digital/web analytics in an organizational context*
- ✓ *Learn how to examine digital/web analytics strategies, including segmentation, context, conversion, and attribution*
- ✓ *Define KPIs and key metrics used in digital/web analytics*
- ✓ *Learn how to use and deploy various tools and software used to track analytics, such as Google Analytics, Piwik PRO*
- ✓ *Discuss website optimization and data integration with analytics*
- ✓ *How to deploy web intelligence to improve the outcomes of your marketing or business plan.*
- ✓ *How to use data visualization tools (Tableau, Power BI, Google Data Studio) for creating a professional business report*

7. Assessment Criteria

The following table shows how your course learning outcomes relate to the overall learning goals and outcomes, and indicates where these are assessed (they may also be developed in tutorials and other activities):

Learning Goals and Outcomes	Course Learning Outcomes	Course Assessment Item
This course helps you to achieve the following learning goals for all students:	*On successful completion of the course, you should be able to:*	*This learning outcome will be assessed in the following items:*
Knowledge	✓ Explain the concept of digital business and its relationship to broader marketing strategies. ✓ Explain the types and reasons for different digital infrastructure. ✓ Explain the importance of web analytics in marketing ✓ Understand the Key Performance Indicators (KPI) which are used for digital analytics ✓ Learn how to use and deploy web/social/mobile analytics platforms such as Google Analytics, Piwik PRO ✓ How to optimize web site using Web Analytics data ✓ Learn how to integrate analytics into your digital marketing strategy ✓ Learn how to create a Persona with customer data ✓ How to apply your Personas to improve conversions and segmentation ✓ How to understand and discuss clickstream data collection techniques, their impact on metrics, and their inherent limitations; ✓ How to gain a practical understanding of common monitoring or analysis tasks and techniques used in web analytics ✓ How to effectively use the resulting insights to support website design decisions, campaign optimisation, search analytics, navigation analysis, experimentation –	• **Project** • **Report** • **Group Discussion Topics** • **Exam**

	A/B and multivariate testing, current trends & challenges, etc. ✓ How to recognise the role of web analytics within the digital marketing landscape. ✓ How to identify, define and interpret commonly used web metrics and KPIs. ✓ How to use advanced analytics to build credit-scoring models that increase opportunity for company ✓ How to deploy marketing frameworks and models (REAN, RACE, 5A, Customer Journey,…) to building a solid digital marketing strategy for your brand ✓ How to effectively manage a web metrics programme within an organisational context. ✓ How to make informed decisions on how to analyse and interpret web channel data and understand the difficulties and issues involved. ✓ How to use data visualization tools (Tableau, Power BI, Google Data Studio) for creating a professional business report	
Critical thinking and problem solving	*Analyse website data and integrate it with market information* *Identify relevant key constructs such as value of products, customers and brands, consumer behavior, customer preferences, market trends, other useful business insights using website analytics*	• **Project** • **Group Discussion Topics** • **Report**
Written communication	*Develop plans that reflect the overall digital and marketing strategies*	• **Report**

Oral communication	*Communicate ideas in a succinct and clear manner during class discussions* *Present results from the group report*	• **Class participation** • **Report presentation** • **Group Discussion Topics**
Teamwork	*Work collaboratively to complete the major group project.*	• **Team peer evaluation**
Ethical, social and environmental responsibility	*Identify and assess legal and social considerations in web analytics and digital marketing.*	• **Report** • **Group Discussion Topics** • **Exam**
Social and cultural awareness	*Specific and discussion topics addressed in this course.*	• **Group Discussion Topics**

8. Course Structure:

Lecture 1: Course overview and Introduction to Digital Business

1.1 How the Internet has changed our world

1.2 How the information revolution changed your business

1.3 The cultural factors present for building an analytics culture in the firm

1.4 Leadership, vision and steering the ship at Organizational Change

1.5 The hub and spoke method at the firm

1.6 Case Analysis

Lecture 2: Web analytics at Digital Business scale

2.1 Developing a REAN (Reach, Engage, Activate and Nurture) model

2.2 The REAN model – departmental goals

2.3 The REAN model – definition

2.4 Case Analysis

Lecture 3: Key performance indicators

3.1 What are KPIs?

3.2 The ACME visionary KPI

3.3 Developing the REAN model

3.4 Case Analysis

Lecture 4: Metrics Overview

4.1 Common metrics for measuring returns and investments

4.2 Developing a formula for return on investment

4.3 Common ROI tracking challenges

4.4 Process for identifying appropriate metrics

4.5 Differentiating return metrics from operational metrics

4.6 Marketing Productivity Metrics

Lecture 5: Planning analytics business cases and wins you can share

5.1 What is a quick win?

5.2 Process to plan the quick win

5.3 Determine potential quick wins

5.4 How to use Web Analytics Tools

5.5 The 25–50–25 rule

5.6 Design the business case

5.7 Case Analysis

Lecture 6: Tools of the trade and Web Analytics services

6.1 Data

6.2 Clickstream data

6.3 Experience data

6.4 Ecosystem data

6.5 Social data

6.6 Big data

6.7 Data collection methods

6.8 Tag management systems

6.9 Analytics tool selection

6.10 Analytics implementation

6.11 Case Analysis

Lecture 7: Segmentation and personas

7.1 An introduction to personas

7.2 The Van Welie method

7.3 Persona using the Van Welie method

7.4 The persuasion architecture method

7.5 Case Analysis

Lecture 8: Testing personas to improve conversion

8.1 Define your testing approach

8.2 Engaging Personas

8.3 Persona-based Lead Scoring

8.4 Testing the persona gaps

8.5 Testing best practices

8.6 Case Analysis

Lecture 9: Using data and telling stories

9.1 Data visualization tools

9.2 Numbers, dashboards, insights, stories

9.3 Starting with the business question

9.4 Monetisation

9.5 Writing and telling the story

9.6 Case Analysis

Lecture 10: Summary of Course

10.1 From ground zero to the cult of analytics

10.2 Culture-building best practices

10.3 Amazon case study

10.4 How ACME got started

10.5 Case Analysis

10.6 The one thing that drives change

9. Required Textbooks

There is no single text book that covers the topics you will study in this course. However, most of the lectures main course book is *Cult of Analytics 2nd, Data Analytics for Marketing (by Steve Jackson)* accessible online from here. For each covered topic the corresponding book chapter(s) or other reading will be provided.

10. Suggested Textbooks

Marshall Sponder (2017), *Digital Analytics for Marketing*, Routledge

Malcolm McDonald (2014), *Marketing Value Metrics: A New Metrics Model to Measure Marketing Effectiveness 2nd Edition*, Kogan Page

The following sources provide many useful analytics cases with business data:

Darden Business Publishing, Harvard Business School Publishing, INSEAD Case Publishing, Ivey Cases, Kellogg Case Publishing, Stanford Graduate School of Business, Data Analytics Websites: DataCamp, Github, KDnuggets…

11. Course Schedule:

Slot	Main contents	Specific contents and activities	Student's tasks

Slot	Main contents	Specific contents and activities	Student's tasks
1&2	**Lecture 1: Course overview and Introduction to Digital Business**	• *Course Introduction: outline and schedule, assessment overview, course materials and guide on assignments, assessment criteria* • How the Internet has changed our world • How the information revolution changed your business • The cultural factors present of The Culture for a digital age • Leadership, vision and steering the ship at Organizational Change • Understanding Web Analytics • Rethinking Web Analytics: Meet Web Analytics 2.0 • The Deepening Data Deluge • Human Intervention Still Required • Data-Driven Marketing: Stay Goal-Oriented <u>*In-Class Discussion*</u> - Discuss the emerging trends of Digital age and Organizational Change Management in The digital age.	**Required Readings:** • Reading the course's syllabus • Chapter 1, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Chapter 1, *Web Analytics 2.0 The Art of Online Accountability & Science of Customer Centricity,* Avinash Kaushik (2010) • *The articles and other reading provided by Prof*
3&4	**Group Assignment Coaching** **Lecture 2: Web analytics at Digital Business scale**	• *Communicating the research results* • *The major components of a research proposal* • *Group Assignment Coaching* • *Review of contents of group assignment* • *Answer students' questions on group assignment* • Overview of Consumer Decision Making • Developing a REAN (Reach, Engage, Activate and Nurture) model • The REAN model – departmental goals • The REAN model – definition <u>*In-Class Discussion*</u> - Discuss the practice of marketing frameworks and models in Vietnamese firms and Digital Marketing	**Pre-work:** • Formulating the students' groups for the group assignment • Reading the requirements of the group assignment **Required Readings** • Chapter 2, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Chapter 12, *Marketing and Management Models*, Helen Strong (2014) • *The articles and other reading provided by Prof*

Slot	Main contents	Specific contents and activities	Student's tasks
5	**Lecture 3: Key performance indicators**	• Web Analytics versus Big Data • Overview of the Marketing Value Metrics model • Implementing the Marketing Value Metrics model • Common tools used for analytics • Intermediate Metrics and Web Analytics • Web Analytics attribution models <u>*In-Class Discussion*</u> - Discuss the practice of Digital Analytics Industry Players, marketing models such as REAN models in the firm and business metrics for data-driven companies - Answer students' questions related to the group assignment	**Required Readings** • Chapter 3, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Chapter 2&5, *Marketing Value Metrics,* Malcolm McDonald (2014) • *The articles and other reading provided by Prof*
6&7	**Lecture 3: Key performance indicators (cont.)** **Lecture 4: Metrics Overview**	• What are KPIs? • The visionary KPI • Developing the REAN model • Common metrics for measuring returns and investments • Developing a formula for return on investment • Common ROI tracking challenges • Process for identifying appropriate metrics • Differentiating return metrics from operational metrics • Marketing Productivity Metrics <u>*In-Class Discussion*</u> - Discussing the usage of Marketing Productivity Metrics in the context of the firms - Answer students' questions related to the group assignment	**Required Readings** • Chapter 4&5, *Digital Analytics for Marketing,* Marshall Sponder (2018) • Chapter 6, *Marketing 4.0*, Philip Kotler (2017) • *The articles and other reading provided by Prof*
8&9	**Lecture 5: Planning analytics business cases and wins you can share**	• What is a quick win? • Process to plan the quick win • Determine potential quick wins • How to use Web Analytics Tools • The 25–50–25 rule • Design the business case	**Required Readings** • Chapter 4, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Chapter 4, *Marketing*

Slot	Main contents	Specific contents and activities	Student's tasks
		<u>*In-Class Discussion*</u> - Discussing the planning analytics business cases within a scenario firms - Answer students' questions related to the group assignment	*Value Metrics,* Malcolm McDonald (2014) • Chapter 6, *Digital Analytics for Marketing,* Marshall Sponder (2018) • *The articles and other reading provided by Prof*
10&11	**Lecture 6: Tools of the trade and Web Analytics services**	• Data • Clickstream data • Experience data • Ecosystem data • Social data • Big data • Data collection methods • Tag management systems • Analytics tool selection • Analytics implementation <u>*In-Class Discussion*</u> - Discussing the usage of observation data in the context of Vietnamese firms - Answer students' questions related to the group assignment	**Required Readings** • Chapter 5, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Chapter 7&8, *Marketing Value Metrics,* Malcolm McDonald (2014) • *The articles and other reading provided by Prof* **Pre-work:** - Preparing and submitting slides for oral presentation
12	**Middle exam: Specific and discussion topics about Digital Analytics in the firm**	Middle exam <u>*Activity*</u> - Oral presentation of Group Discussion Topics - Q&A on each presentation - Answer students' questions related to the Group Discussion Topics	- Project proposal due
13&14	**Lecture 7: Segmentation and personas**	• An introduction to personas • The Van Welie method • The persona using the Van Welie method • The persuasion architecture method <u>*In-Class Discussion*</u> - Discussing the challenges of Personas and The Van Welie method	**Required Readings** • Reading Chapter 6, *Cult of Analytics 2nd, Data Analytics For Marketing,* Steve Jackson (2015) • Reading Chapter 11, *Marketing Value Metrics,* Malcolm

Slot	Main contents	Specific contents and activities	Student's tasks
		- Discussing the challenges of Personas and The persuasion architecture method - Answer students' questions related to the group assignment	McDonald (2014) • *The articles and other reading provided by Prof*
15&16	**Lecture 8: Testing personas to improve conversion**	• Define your testing approach • Engaging Personas • Persona-based Lead Scoring • ACME testing the persona gaps • Testing best practices <u>*In-Class Discussion*</u> - Discussing the challenges of the type of testing in Persona - Answer students' questions related to the group assignment	**Required Readings** • Chapter 7, *Cult of Analytics 2nd, Data Analytics For Marketing*, Steve Jackson (2015) • *The articles and other reading provided by Prof*
17	**Lecture 9: Using data and telling stories**	• Data visualization tools • Numbers, dashboards, insights, stories • Starting with the business question • Monetisation • Writing and telling the story <u>*In-Class Discussion*</u> - Discussing the challenges of Data visualization tools - Answer students' questions related to the group assignment	**Required Readings** • Chapter 8, *Cult of Analytics 2nd, Data Analytics For Marketing*, Steve Jackson (2015) • *The articles and other reading provided by Prof*
18&19	**Lecture 9: Using data and telling stories (cont.)** **Lecture 10: Summary of Course**	• From ground zero to the cult of analytics • Culture-building best practices • Amazon case study • How ACME got started • The one thing that drives change <u>*In-Class Discussion*</u> - Discussing the challenges for creating a professional business report - Answer students' questions related to the group assignment	**Required Readings** • Chapter 9, *Cult of Analytics 2nd, Data Analytics For Marketing*, Steve Jackson (2015) • *The articles and other reading provided by Prof*
20	**Group Project Presentations**	• Oral presentation of group research project by groups of students • Q&A on each research project	**Pre-work:** • Submitting research project report

Slot	Main contents	Specific contents and activities	Student's tasks
		• Each oral presentation must not be longer than 15 minutes	• Preparing and submitting slides for oral presentation
21	**Group Project Presentations**	• Oral presentation of group research project by groups of students • Q&A on each research project • Each oral presentation must not be longer than 15 minutes	**Pre-work:** • Submitting research project report • Preparing and submitting slides for oral presentation
22	**Course Wrap-up**	• Give comments on the group assignment • Give a general review of the course's contents and discussion	• Final project due

12. Grading Policy

	Assignment	Importance
1	**Class participation/In class activities**	**10%**
2	**Mid-term test**	**10%**
3	**Group assignment**	**30%**
4	**Final exam (individual)**	**50%**

Class participation

Note: *Punctual and regular attendance is a minimum expectation for this course. The students must not be absent more than 20% of total scheduled learning slots.*

All cell phones & other electronic devices (e.g., pagers, iPads, iPods, PDAs) must be put on vibrate or turned off and not on your desk during class.

Talking and other disruptive behavior are not permitted while classes are in session.

Students are expected to do original work for all assignments, including exams.

Students are responsible for their own conduct and all cases of dishonesty (e.g., plagiarism, cheating) will be reported to the proper university officials.

Homework descriptions and homework uploading via Social media groups and Emails.

In-class Business analytics exercises

- *Case analysis assignments with real world data: Case writing to recommend a proper course of action based on analytic results*
- *Course group project: Define business problem, collect and clean data, conduct a statistical analysis, and recommend a course of action. Data analysis project with a client can be accommodated as this group project.*
- *Examinations: Formats should require students to demonstrate critical thinking and application/problem solving skills. Multiple choice exams are not allowed.*

Midterm exam

In the 12th slot, students will be given a case study/a scenario with some relevance to the digial marketing analytics topics being discussed, and be asked to discuss or explain their point of view in a limited amount of class time

Group Assignment

This assignment encourages students to apply knowledge and develop skills related to digial marketing analytics in a real case in order to become familiar with the reality of digial marketing analytics activities.

The Group Project involves an in depth analysis of digial marketing analytics plan for a scenario/a real firm and the purpose of the project is to get real, firsthand experience with analytics driven decision making and marketing strategy. The group research assignment requires student to work with other members in an assigned group to develop a digial marketing analytics plan and present the report. You will form a project team of either 4-5 people. They will be required to design and execute a digial marketing analytics plan that addresses multiple aspects of the chosen or assigned scenario/real firm. As a result of the group assignment, each group must deliver a written report and present it. The oral presentation of each group must be no longer than 15 minutes.

Groups will be assigned at the beginning of the class and will be announced under Announcements. The instructor may also use a group sign-up sheet to form groups for group assignments or projects. A private discussion area may be set up on the discussion board for internal group communications. A group chat room can also be created for each group to use. Teams can schedule a calendar for teamwork.

Final exam

The final exam consists of from two to three essay questions that might be related to any web analytics topics covered throughout the course.