Module code	MKT7C4	**Level**	7
Module title	Digital Marketing Data Analysis	**Credit value**	10
Programme(s) on which the module is taught	MSc Digital Marketing & Analytics	**ECTS Credits**	5
		Notional learning hours	100

1. Pre-requisite modules

None

2. Module aims and objectives

This module is designed to provide students with an in-depth understanding of digital marketing statistical techniques via the use of latest analytics software packages. Students will be introduced to the core analytical concepts of “big” data analysis. This module takes them from rudimentary data management to descriptive visualisation to inferential and predictive analytics. They will learn how digital marketers use data to inform decision making, target customers, and analyse consumer behaviours.

Successful students will receive joint SAS/Regents Certification in Data Analytics.

3. Learning outcomes

A. Knowledge and understanding

Upon successful completion of this module the students will be able to:

A1. Operate in complex and unpredictable and/or specialised contexts, requiring selection and application from a wide range of advanced techniques and information source. Ethically undertake analysis of complex, incomplete or contradictory evidence / data and judge the appropriateness of the enquiry methodologies used. Recognise and argue for alternative approaches.

A3. Have a deep and systematic understanding within a specialised field of study and its interrelationship with other relevant disciplines. Demonstrate an understanding of current theoretical and methodological approaches and how these affect the way the knowledge base is interpreted.

B. Skills

Upon successful completion of this module the students will be able to:

B2. Ethically design and undertake substantial investigations to address significant areas of theory and/or practice. Select appropriate advanced methodological approaches and critically evaluates their effectiveness.

B3. Use ideas at a high level of abstraction. Develop critical responses to existing theoretical discourses, methodologies or practices and suggest new concepts or approaches.

B4. Incorporate a critical ethical dimension to their practice, managing the implications of ethical dilemmas.

4. Indicative content

- Marketing Analytics
- Inferential vs Descriptive Analytics
- Essential Statistics
- Developing skills in the SAS Analytics platform
- Essential techniques: Means Comparison
- Essential techniques: Correlation and Linear Regression
- Essential techniques: Categorical Data Analysis and Logistic Regression
- Narrative creation: Managerial and Marketing translation of statistical insights.

5. Learning and teaching methods

The following learning and teaching methods are employed on this module including:

- Seminar/Lab sessions
- Guest speakers
- Self-directed online exercises

This module will be delivered in line with the BAM pedagogic principles (see programme handbook for full details). Specifically, for this module:

BAM Pedagogic principle	How it applies to this module
1. Ed tech application	This module will feature full use modern analytical tools such as SAS JMP, and/or other industry recognised analytical tools. The module will feature applied case studies and exercises. Students will be expected to use online research to explore relevant themes and ideas. They will be challenged to acquire applied analytical skills in one or technological platforms.

2. Multicultural and diversity	Case-studies from the marketing sector will be employed to reflect the global reach of big data analytics.
3. Solution focused and practice oriented	The module is, by its very nature, based on applied practice and decision-making.
4. Integration of learning	This module will draw on the students' work on the term 1 data exploration module.
5. Assessment for learning	The assessment for this module requires formative work in support of full submission thereby allowing for learning by doing rather than assessment as an end point.

The notional learning hours for this module are:

10 credit module – 100 learning hours	
Directed learning	**20 hours**
Lab Demonstration	10
Lab Exercises	10
Collaborative Learning	**9 hours**
Lab Case Study work	9
Self-directed learning	**71 hours**
Preparation for class	13
Self-study after class	22
Preparation for assessments	22
Assessment	14
Total	**100**

6. Assessment and relative weightings

The assessment strategy for this module comprises both formative feedback as well as summative assessment. The module will be practical in its focus. Students will manipulate various data sets during class activities which will comprise of directed and self-directed study tasks, primarily using SAS software but also any other tools and skills learnt on the programme.

Formative Assessment: Case study session(s)

In order to provide a more authentic learning setting; a number of case studies will be presented to throughout the course of the module. All case studies adhere to a similar structure. Students will be presented with a marketing/business scenario and a set of data related to the scenario. A case study approach; by means of guiding them through the various steps required, will teach students

how to address and partially resolve the issue(s) presented. They will further be required to address additional reflective questions. The thrust of each case study will be around the use of inferential and predictive analytics in order support and inform marketing scenarios.

Summative Assessment: Individual Project, 2500 words (+/- 10%) (100% TMM)
Working individually, students will write a data analysis report, based on a data set of their choosing. They will select one of the datasets provided on Blackboard. Students will be expected to employ a basic level of descriptive statistics and at least three inferential statistical methods, which will be variations of the following:

- t-Tests
- ANOVA
- Simple and Multiple Linear Regression
- Logistic Regression

Analysis should be hypothesis driven and should attempt to demonstrate findings of significance. Students will be required to provide a managerial/marketing narrative for non-experts.

7. Mapping of assessment tasks for the module

Assessment tasks	A1	A3	B2	B3	B4
Individual Project	x	x	x	x	x

8. Key reading

Core textbook

Grigsby, M. (2018). Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques. Kogan Page, London

Further resources

Artun, O Levin, D. (2015). Easy Ways Every Marketer Can Use Customer Analytics and Big Data. John Wiley & Sons, New Jersey

Bailey, M (2017). JMP® Software: ANOVA and Regression: Course Notes Grigsby M (2016)

Other resources

Marketing Analytics: A practical guide to real marketing science

https://www.jmp.com/en_us/online-statistics-course.html

https://analytics.google.com/analytics/academy/https://www.jmp.com/en_us/online-statistics-course.html

https://www.jmp.com/en_gb/home.html