

**MODULE SPECIFICATION**

Part 1: Information			
Module Title	Big Data for Marketing		
Module Code	UMKDMR-15-3	Level	3
For implementation from	September 2017		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Business and Law	Field	Marketing, Events and Tourism
Department	Business and Management		
Contributes towards	BA(Hons) Marketing, BA(Hons) Business Management with Marketing, BA(Hons) Business and Management		
Module type:	Standard		
Pre-requisites	UMCDN4-15-1/ UMCDN3-15-1/ UMCDN5-15-1, and UMCDM9-15-2/ UMCDM8-15-2		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	N/A		

Part 2: Description
<p>This module will introduce you to the principles and practices of using data, including 'Big Data', to address marketing issues. From finding appropriate data, through formatting, selection, analysis, interpretation, and development of strategic recommendations, this module focuses upon the use of a rapidly expanding number of data sources that are proving essential to today's marketers. We believe that this module will support excellent employability in a field where the industry reports a lack of suitable graduates.</p> <p>Despite the quantitative focus of this module, you are rarely required to perform complex statistics yourself, and instead learn to use software that supports business professionals in making sense, and making predictions from, the kind of marketing data available to most businesses.</p> <p>In this module you will examine the practicalities of handling large volumes of data and preparing it for data analysis, and selecting appropriate variables from the large variety of sources available in order to answer specific marketing needs. You then learn how to use popular software tools to analyse the data, develop models, and to interpret and translate these findings into an actionable marketing strategy. Such evidence-based decision-making is a key skill for employability across sectors. This module may be of particular interest to those who enjoy understanding consumer behaviour.</p> <p>This module also highlights the rapidly evolving concerns of dealing with data on a global scale, and the ethical implications of using data from diverse sources,</p>

You will cover:

- Data sourcing, warehousing, handling and preparation
- Analytical techniques: conjoint analysis, association/market basket analysis, cluster analysis, Next Best Offer Techniques, CHAID and regression techniques
- Interpreting the results of data analysis in light of consumer behaviour
- Developing predictive models of consumer behaviour
- Developing evidence-based marketing decisions
- Ethics
- Data security
- Use of Software such as SPSS Statistics and SPSS Modeler

The module will be delivered collaboratively between FBL and FET staff, working with market research practitioners where possible. It will consist of weekly lectures, and weekly 2 hour tutorials, focused around small group work.

Part 3: Assessment

The Group Presentation (Component A) will offer an early formative feedback opportunity for students, allowing groups to work on preparing a suitable database from data supplied, choosing appropriate data, analysing the data, and presenting their analysis and initial conclusions in response to a contemporary marketing issue.

The Report (Component B) will build upon the Group Presentation, and allow students to build upon their group's initial analysis (with the help of formative feedback supplied) on an individual basis. Students are required to develop their data analysis, write a report and provide recommendations to address a contemporary marketing issue.

Identify final timetabled piece of assessment
(component and element)

Component B

% weighting between components A and B (Standard modules only)

A:

25%

B:

75%

First Sit

Component A (controlled conditions)
Description of each element

Element weighting
(as % of component)

1. Group In-Class Presentation

100%

Component B
Description of each element

Element weighting
(as % of component)

1. Report (2,500 words)

100%

Resit (further attendance at taught classes is not required)

Component A (controlled conditions)
Description of each element

Element weighting
(as % of component)

1. Individual Presentation

100%

Component B
Description of each element

Element weighting
(as % of component)

1. Report (2,500 words)

100%

Part 4: Teaching and Learning Methods

Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> • Understand the challenges and opportunities of Big Data for marketing decision-making, and its economic and global impact upon business (Component A) • Understand the principles underlying the practicalities of procuring, handling, securing and preparing data (Component A, Component B) • Demonstrate the ability to use this data to develop and evaluate models that predict consumer behaviour and allow development of evidence-based marketing strategies (Component A, Component B) • Apply critical thinking and evaluative skills in selecting and using appropriate data and analysis methods, and problem-solving skills when addressing marketing issues using such data (Component A, Component B) • Consider the ethical implications of Big Data and broader data usage in marketing (Component B) 																														
<p>Key Information Sets Information (KIS)</p> <p>Contact Hours</p> <p>Total Assessment</p>	<table border="1" data-bbox="518 757 1430 1146"> <thead> <tr> <th colspan="5">Key Information Set - Module data</th> </tr> </thead> <tbody> <tr> <td colspan="4">Number of credits for this module</td> <td>15</td> </tr> <tr> <th>Hours to be allocated</th> <th>Scheduled learning and teaching study hours</th> <th>Independent study hours</th> <th>Placement study hours</th> <th>Allocated Hours</th> </tr> <tr> <td>150</td> <td>36</td> <td>114</td> <td>0</td> <td>150</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes a;</p> <p>Written Exam: Unseen or open book written exam Coursework: Written assignment or essay, report, dissertation, portfolio, project or in class test Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam (i.e. an exam determining mastery of a technique)</p> <table border="1" data-bbox="568 1458 1383 1693"> <thead> <tr> <th colspan="2">Total assessment of the module:</th> </tr> </thead> <tbody> <tr> <td>Written exam assessment percentage</td> <td>0%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td>75%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td>25%</td> </tr> <tr> <td></td> <td>100%</td> </tr> </tbody> </table>	Key Information Set - Module data					Number of credits for this module				15	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	150	36	114	0	150	Total assessment of the module:		Written exam assessment percentage	0%	Coursework assessment percentage	75%	Practical exam assessment percentage	25%		100%
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Reading List	<p>The online reading list is available at: https://uwe.rl.talis.com/lists/FE9DAC8B-3E64-3172-17DA-52BE0EC90119.html</p> <p>Big Data and Marketing Books</p> <ol style="list-style-type: none"> 1. IBM SPSS Modeler Cookbook 2. Data Mining with SPSS Modeler: Theory, Exercises and Solutions 3. Marketing Research with SPSS 																														

4. Applied Predictive Analytics: Principles and Techniques for the Professional Data Analyst
5. Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management
6. Predictive Analytics, Data Mining and Big Data: Myths, Misconceptions and Methods (Business in the Digital Economy)
7. Data Mining Techniques in CRM: Inside Customer Segmentation
8. Effective CRM using Predictive Analytics
9. Big Data: A Revolution That Will Transform How We Live, Work and Think
10. Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die
11. SPSS Survival Manual

Journals

1. Computational Statistics & Data Analysis (0167-9473)
2. Journal of Multivariate Analysis (0047-259X)
3. Journal of the Royal Statistical Society (0035-8524)
4. Journal of Applied Statistics (0266-4762)
5. Journal of Consumer Psychology (1057-7408)
6. Journal of Consumer Research (0093-5301)
7. Journal of Marketing Research (0022-4359)
8. Journal of Marketing Analytics (2050-3318)
9. Marketing Theory (1470-5931)
10. Psychology and Marketing (0742-6046)
11. Journal of Consumer Behaviour (1472-0817)
12. Journal of Marketing Theory and Practice (10596679)
13. Services Marketing Quarterly (1533-2969)
14. Journal of Forecasting (0277-6693)
15. Journal of Social Psychology (0022-4545)
16. Journal of Database Management
17. International Journal of database Management
18. Journal of Marketing Analytics (2050-3318)
19. Data Mining and Knowledge Discovery
20. International Journal of Data Warehousing and Mining
21. International Journal of Data Mining and Knowledge Management
22. Statistical Analysis and Data Mining
23. Decision Analytics (219-8636)
24. Annals of Statistics

YouTube Videos

Predictive in 20 Minutes with IBM SPSS Modeler

https://www.youtube.com/watch?v=_VbQer7k6ns

SPSS Modeler Demo

<https://www.youtube.com/watch?v=Lew1m8Qo7js&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA>

Using SPSS Modeler to perform a market basket analysis in a Retail scenario

https://www.youtube.com/watch?v=pQI89W_T0Q0&index=4&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA

Affinity analysis made easy using IBM SPSS Modeler

https://www.youtube.com/watch?v=lyv_aYBDVK0&index=5&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA

	<p>How to build a predictive model using IBM SPSS Modeler https://www.youtube.com/watch?v=AYlqvBMW04E&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA&index=7</p> <p>Predicting asset failure with IBM SPSS Modeler https://www.youtube.com/watch?v=fUenMJ7RBwQ&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA&index=8</p> <p>How to perform a 'What if?' analysis using IBM SPSS Modeler https://www.youtube.com/watch?v=FNFsGiqOOX0&list=PL-xTSknf3bvgH43K7FMVapz1rm1X8fGfA&index=10</p> <p>Customer Analytics with SPSS Modeler https://www.youtube.com/watch?v=maMvbwXax7k</p> <p>Turning big data into big insight: New algorithms for big data analytics https://www.youtube.com/watch?v=83KLd1co9BU</p>
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First CAP Approval Date	Date of first CAP approval 15 December 2016 link to RIA			
Revision CAP Approval Date <i>Update this row each time a change goes to CAP</i>		Version	<i>2</i>	<i>Link to RIA</i>