

Module Code:	BUS461
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Module Title:	Data Analytics and Understanding Big Data
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Level:	4	Credit Value:	20
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Cost Centre(s):	GAMG	JACS3 code:	P110
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School:	Social & Life Sciences	Module Leader:	Dr Kelvin LEONG
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Scheduled learning and teaching hours	36 hrs
Guided independent study	164 hrs
Placement	0 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered (not including exit awards)	Core	Option
BA (Hons) Business	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BA (Hons) Accounting & Finance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BA (Hons) Hospitality, Tourism & Event Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BA (Hons) Human Resource Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BA (Hons) Marketing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BSc (Hons) Financial Technology Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FdA Business Part-Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Pre-requisites
None

Office use only

Initial approval:29/06/18

With effect from:01/09/18

Date and details of revision:

Version no:1

Version no:

Module Aims

1. To outline the genesis and evolution of data analytics and 'big data' in modern business
2. To outline purpose of 'big data' and the uses of data analytics in business including data mining tools and techniques
3. To outline the various sources of data utilised within business, exploring the suitability of analytical tools and tests available
4. To explore and interpret example data sets utilising Microsoft Excel within a business context.

Intended Learning Outcomes

Key skills for employability

KS1	Written, oral and media communication skills
KS2	Leadership, team working and networking skills
KS3	Opportunity, creativity and problem solving skills
KS4	Information technology skills and digital literacy
KS5	Information management skills
KS6	Research skills
KS7	Intercultural and sustainability skills
KS8	Career management skills
KS9	Learning to learn (managing personal and professional development, self-management)
KS10	Numeracy

At the end of this module, students will be able to

Key Skills

At the end of this module, students will be able to		Key Skills	
1	Develop ability to use data analytic techniques to summarise data in a meaningful way	KS1	
		KS4	
		KS10	
2	Discuss what data is available to businesses and what analytical tools and tests are available	KS1	KS10
		KS4	
		KS5	
3	Describe the definitions and origins of data analytics in business and big data	KS1	KS10
		KS4	
		KS5	
4	Identify the uses of data analytics and the purpose and benefits of big data analysis	KS1	
		KS3	
		KS4	
		KS5	
		KS10	

Transferable skills and other attributes

- ability to collaborate and plan
- contribute proactively
- display data effectively using a variety of methods
- study, writing, IT skills

- communication skills
- meeting objectives

Derogations

None

Assessment:

Indicative Assessment Tasks:

Indicative Assessment One:

Assessment 1 requires students to undertake a piece of research into relevant issues within the concepts and practices of Data Analytics and Big Data, such as how big data is being used in businesses and its importance.

Indicative Assessment Two:

Students are expected to present a portfolio of individual work that applies data analytic techniques to data sets and information sources. A key component of the assessment will be the interpretation and insight gained from conducting the analysis.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1, 2	Essay	50%	N/A	1500
2	3, 4	Portfolio	50%	N/A	1500

Learning and Teaching Strategies:

Learning will focus especially on developing the practical /technical skills required to undertake the computational aspects of the module. This will be achieved by means of lectures, tutorials and directed study. Some lectures may be provided to students digitally, a minimum of three working days before the classroom tutorials. The classroom tutorials will facilitate interactive discussion and feedback on the lecture material which forms a basis for group work through practical exercises. The tutorials will be very much based around in-class exercises so as to give the students sufficient 'hands-on' experience. Directed study will allow the students to enhance their understanding of the topics covered.

The module is embedded within the values and practices espoused in the Glyndŵr University's Teaching and Learning and Assessment strategy whereby students are encouraged to take responsibility for their own learning and staff facilitate the learning process, with the aim of encouraging high levels of student autonomy in learning and the capacity to apply it within the wider environment.

Syllabus outline:

1. Introduction to the definitions of data analytics and 'big data'
2. Introduction to the data sources available and how to assess their appropriateness
3. Introduction to the tools and techniques used in data analytics
4. Basic Microsoft Excel skills
5. Data output interpretation
6. Case study in Business Analytics
7. Benefits and uses of data analytics
8. Benefits and uses of 'Big Data'
9. Case study in 'Big Data'
10. Weaknesses of data analytics and use of 'big data'

Indicative Bibliography:**Essential reading**

Marr, B. (2015) *Big Data: Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance*, 1st edition, Wiley.

Other indicative reading

Davenport, T.H. (2014), *Big Data at Work: Dispelling the Myths, Uncovering the Opportunities*. Boston: Harvard Business Review Press.

Schmarzo, B. (2012), *Big Data: Understanding How Data Powers Big Business*. Indianapolis, IN: Wiley.

Journals:

Journal of Big Data

Journal of the Royal Statistical Society

Harvard Business Review

Website

www.managers.org.uk – Chartered Management Institution