

Module Title:	Data Analytics and Understanding Big Data	Level:	4	Credit Value:	20
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Module code:	BUS435	Is this a new module?	No	Code of module being replaced:	N/A
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Cost Centre(s):	GAMG	JACS3 code:	N211
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With effect from:	September 17
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School:	Social and Life Sciences	Module Leader:	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	Core	Option
MBus	✓	<input type="checkbox"/>
MAccFin Accounting and Finance	✓	<input type="checkbox"/>
BA (Hons) Applied Business	✓	<input type="checkbox"/>
BA (Hons) Business	✓	<input type="checkbox"/>
BA (Hons) Accounting and Finance	✓	<input type="checkbox"/>
BA (Hons) Hospitality, Tourism and Event Management	✓	<input type="checkbox"/>
BA (Hons) Global Business	✓	<input type="checkbox"/>
BA (Hons) Business, Marketing and Consumer Behaviour	✓	<input type="checkbox"/>
BSc (Hons) Sports Management	<input type="checkbox"/>	✓
HNC Business	✓	<input type="checkbox"/>

Pre-requisites
None

Office use only

Initial approval: September 14

APSC approval of modification: June 17

Version: 6

Have any derogations received SQC approval?

Yes No N/A ✓

If new module, remove previous module spec from directory?

Yes 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	KS4	KS10
2	Discuss what data is available to businesses and what analytical tools and tests are available	KS1	KS6
3	Describe the definitions and origins of data analytics in business and big data	KS1	
4	Identify the uses of data analytics and the purpose and benefits of big data analysis	KS5	

Transferable skills and other attributes

Derogations

None

Assessment:

Indicative Assessment One:

Students are expected to present a portfolio of individual work that applies data analytic techniques to data sets and information sources. Students will be provided with a range of data sets and supporting case studies and will be required to select two. A key component of the assessment will be the interpretation and insight gained from conducting the analysis.

Indicative Assessment Two:

Discuss the purpose and benefits of data analytics and 'big data' within modern business, providing examples of the uses of 'big data' and analytics and outlining the potential limitations/flaws of the data available. (2000 words, individual essay)

Students are expected to read the recommended texts plus additional materials of their choosing.

Students on the BA (Hons) Applied Business programme will undertake assessment tasks based on their partnered employer.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1,2	Portfolio	50	N/A	2000
2	3,4	Essay	50	N/A	2000

Learning and Teaching Strategies:

Lectures will 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.

To this end 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'

Bibliography:**Essential reading**

Davenport, T. H. (2014) *Big Data at Work*, Harvard Business Review Press, Boston

Few, S. (2012) *Show Me the Numbers: Designing Tables and Graphs to Enlighten*, 2nd. Edn., Analytics Press, Burlingame

Other indicative reading

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

Journals

Journal of Big Data

Journal of the Royal Statistical Society

Other Sources

Kolodny, L. 2014 'How Consumers Can Use Big Data', *Wall Street Journal* 23 March. Available from: <http://online.wsj.com> [25 March 2014]

Johnston, C. 2012 'Google Trends reveals clues about the mentality of richer nations', Available from: *Ars Technica*

Shvetank, S & Horne A. 2012 'Good Data Won't Guarantee Good Decisions', *Harvard Business Review* September 8