

Module specification

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Module Code	COM749
Module Title	Big Data Analytics
Level	7
Credit value	20
Faculty	FAST
HECoS Code	100755
Cost Code	GACP

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
MSC Data Science and Big Data Analytics	Core
MBA Big Data Analytics	Core

Pre-requisites

N/A

Breakdown of module hours

Learning and teaching hours	21 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	27 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	48 hrs
Placement / work based learning	0 hrs
Guided independent study	152 hrs
Module duration (total hours)	200 hrs

For office use only	
Initial approval date	19/07/2022
With effect from date	01/09/2022
Date and details of revision	
Version number	1

Module aims

This module aims to develop students' understanding of data analytics to gain insights into business activities to aid executive decision-making. Students will explore a range of tools, techniques, and procedures that can be used to explore data and investigate patterns and trends of past business performance to develop predictive models that can assist to make optimum rational business decisions.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Synthesise the fundamentals of business data analysis
2	Synthesise and apply analytical theories and methods
3	Critical application of analytical tools and techniques
4	Critically evaluate business and organisational scenario using industry-standard data analytics tools and techniques to make optimum rational business decisions.

Assessment

Indicative Assessment Tasks:

The first assessment will be in the form of a portfolio of tasks synthesising both theoretical and practical exercises, combining restricted response questions, practical activities, and coursework (2,500-words equivalent). The tasks will provide an opportunity for students to transfer theoretical knowledge into practical applications.

The second assessment will be a 1,500-word report critically evaluating a business scenario using industry-standard data analytics tools and techniques in the decision-making process.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1,2,3,	Portfolio	60%
2	4	Report	40%

Derogations

None

Learning and Teaching Strategies

The overall learning and teaching strategy will include a series of lectures and practical lab sessions. There will be a mix of supporting notes/along with directed study for students to complete as they work through the material and undertake the assessment tasks. The use of a range digital tool via the virtual learning environment together with additional sources of reading will also be utilised to accommodate learning styles.

Indicative Syllabus Outline

1. Introduction To Business Analytics
2. Overview of Data Analysis
3. Decisions Making Process
4. Sampling and Sampling Distribution
5. Data Analysis Theory and Methods
6. Data Analysis Tools and Techniques - Simulation Models

Indicative Bibliography:

Essential Reads

Albright, S.C., Wayne, L., Winston, L. (2020), Business Analytics: Data Analysis & Decision Making 7th Ed.. CENGAGE Learning

Other indicative reading

Camm, J.D., Cochran, J.J., Fry, M.J., Ohlmann, J.W. (2021), Business Analytics, 4th Edition. CENGAGE Learning

Pinder, J.P. (2017), Introduction to Business Analytics Using Simulation. Academic Press

Journals (available electronically through the library)

IEEE Xplore

Employability skills – the Glyndŵr Graduate

Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

Core Attributes

Engaged
Enterprising
Creative
Ethical

Key Attitudes

Commitment
Curiosity
Confidence
Adaptability

Practical Skillsets

Digital Fluency
Organisation
Leadership and Team working
Critical Thinking
Communication