Module Descriptor

Title	AI Innovation and Business Analytics		
Session	2026/27	**Status**	Approved
Code	MARK08018	**SCQF Level**	8
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	Business and Creative Industries		
Module Co-ordinator	S Azzi		

Summary of Module

This module is designed to explore the transformative role of artificial intelligence (AI) and data analytics in enhancing business functions, innovations, and sustainable growth. The module focuses on how AI and data analytics transforms business through data-driven decision-making and across managerial to key operational and market functions.

Students will engage with applied AI analytics within a series of business cases and functional scenarios such as data management, finance, marketing, organisational development to product innovation and market evaluation. With an emphasis on real-world applications and assessment students will be equipped with the theoretical and practical knowledge and skills of industry-relevant AI and data analytics. Moreover, students will have a deeper understanding and applied appreciation of the central role AI and data analytics plays in revolutionising business.

Module Delivery Method	**On-Campus[1]** ☒	**Hybrid[2]** ☒	**Online[3]** ☐	**Work - Based Learning[4]** ☐
Campuses for Module Delivery	☒ Ayr ☒ Dumfries	☒ Lanarkshire ☒ London	☐ Online / Distance Learning ☐ Other (specify)	

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

			☒ Paisley			
Terms for Module Delivery	Term 1	☐	Term 2	☒	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Demonstrate an understanding of the role of AI in business analytics and its applications within core business functions.
L2	Identify and apply analytical AI tools across an array of business cases and practical operational scenarios.
L3	Evaluate AI data analytics applications and implement AI-powered solutions for business solutions, market insight, innovation and development.
L4	N/A
L5	N/A

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF Level 8** Demonstrate detailed knowledge of AI applications within business analytics, covering a range of sectors and functions. Show familiarity with key AI concepts, theories, and the role of data science in business.
Practice: Applied Knowledge and Understanding	**SCQF Level 8** Apply analytical AI applications to real-world business cases and scenarios that supports business strategy, operational efficiency and effectiveness.
Generic Cognitive skills	**SCQF Level 8** Evaluate and interpret AI applications and analytics models that will enhance data-driven decision-making for business innovation and market insights.
Communication, ICT and Numeracy Skills	**SCQF Level 8** Communicate AI and data analytics core concepts clearly and effectively by drawing upon a series of digital, social and visualisation technologies and techniques.
Autonomy, Accountability and Working with Others	**SCQF Level 8** Demonstrate responsibility in independent learning through collaborative and co-created project work, taking responsibility and accountability for individual contributions and collective project work.

Prerequisites	Module Code N/A	Module Title
	Other	
Co-requisites	**Module Code** N/A	**Module Title**

Learning and Teaching
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. This module's teaching and learning strategy (TLS) is designed to mirror innovative and transformational theoretical underpinning and practical focus of the programme. Therefore, and echoing and developing our Accelerated and Immersive Educational model, we adopt a co- created cybergogical approach where learning is liquid and incorporates 'presence education'. This means module content, engagement and delivery moves beyond hybrid models to integrate cloud-based 2D multi-media with 3D virtual to extended reality as this is seen to 'give students access to situated/experiential learning that would not be possible in traditional classroom settings' and 'improves the acquisition and retention of skills and encourages empathetic learning'. Therefore, this TLS is designed to deliver an agile, responsive, student-centred and empowering educational experience. Importantly, this digitally deep, vibrant and 2D to 3D virtual approach speaks to the dynamic lifestyles of modern students. Moreover, the fluidity, presence, and co-creation of this cybergogy approach, enhances opportunities for the delivery of compressed or accelerated content, which can be repurposed and repackaged for nano-micro-macro product delivery. As such this reimagines widening access, opening education up to the geographically, economically or physically locked whilst enhancing the efficiency and effectiveness of the model overall.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	24
Workshop/Laboratory/Practical Demonstration	24
Asynchronous Class Activity	30
Independent Study	122
TOTAL	200

Indicative Resources

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Daugherty, P. R. and Wilson, H. J. (2018). Human + Machine: Reimagining Work in the Age of AI. Boston: Harvard Business Review Press

Davenport, T. H. (2019). The AI Advantage: How to Put the Artificial Intelligence Revolution to Work. Cambridge, MA: MIT Press.

Ganesan, K. (2022). The Business Case for AI: A Leader's Guide to AI Strategies, Best Practices & Real-World Applications. Amazon.

Iansiti, M. and Lakhani, K. R. (2020). Competing in the Age of AI: Strategy and Leadership When Algorithms and Networks Run the World. Boston: Harvard Business Review Press.

McAfee, A. and Brynjolfsson, E. (2018). "Artificial Intelligence, for Real", Harvard Business Review, 96(4), pp. 108-116.

Marr, B. (2019). Artificial Intelligence in Practice: How 50 Companies Used AI and Machine Learning to Solve Problems. Hoboken, NJ: Wiley.

Rose, D. (2021). Artificial Intelligence for Business: What You Need to Know About Machine Learning and Neural Networks (Pearson Business Analytics Series). Pearson.

Sharda, R., Delen, D., and Turban, E. (2020). Analytics, Data Science, & Artificial Intelligence: Systems for Decision Support, 11th edn. Boston: Pearson.

Details of further resources, including textbooks, journals and online resources will be identified at the beginning of each delivery in the module handbook and made available via the VLE.

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The university is committed to providing a supportive learning environment that actively facilitates student success. In this module, there is a high degree of student-led flexibility. You are academically engaged if you are regularly engaged with scheduled live sessions on-campus and online, including engaging with online learning activities in your own time, course-related learning resources, and with timely completion and submission of assessments.

Whilst we understand that there may be times when conflicting priorities make participation challenging, for you to gain the most from this module it is recommended that you participate in all scheduled live classes and complete your self-directed learning activities in a timely manner.

It may be difficult to pass the assessment associated with this module if you are not regularly engaging with the module work and live classes. We may reach out to check how things are going and offer support if we observe that you have not been attending sessions or completing online activities.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical and/or laboratory based learning or assessment required to meet accrediting body requirements the University will make reasonable adjustment such as adjustable height benches or assistance of a 'buddy' or helper.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	Marketing, Innovation, Tourism and Events
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☒ **Yes** ☐ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	MITE
Moderator	TBC
External Examiner	A Gibb
Accreditation Details	N/A
Module Appears in CPD catalogue	☒ **Yes** ☐ **No**
Changes / Version Number	1

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
40% Digitally present an AI data analytics approach that addresses a specific business function or innovation (e.g., finance, marketing, HR). The word count will align with the guidance in the Assessment Handbook.
Assessment 2

60% Real-world digital business case study identifying AI-driven analytics challenges and critical limitations. The word count will align with the guidance in the Assessment Handbook.
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Creative Output	☒	☐	☐	☐	☐	40	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Practical Portfolio	☐	☒	☒	☐	☐	60	

Component 3							
Assessment Type **N/A**	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	hours

Change Control

What	**When**	**Who**