

University of the West of Scotland

Module Descriptor

Session: 2023/24

Title of Module: Data Analytics			
Code: LNDN08003	SCQF Level: 8 (Scottish Credit and Qualifications Framework)	Credit Points: 20	ECTS: 10 (European Credit Transfer Scheme)
School:	School of Business and Creative Industries		
Module Co-ordinator:	Dr Alloysius Egbulonu		
Summary of Module			
<p>This module is designed to provide students with an introduction to the statistical principles used in data analytics and their application using a suitable statistical package. The module begins by considering how graphical summaries and numerical summaries, such as mean, median, standard deviation and correlation, can be used to describe and understand data. The issue of data handling is then considered. The basic concepts of inferential statistics are discussed and the use of methods for understanding the statistical importance of differences in means and proportions are described.</p> <p>Syllabus: An Introduction to R/Excel – data import, data manipulation; introduction to data handling; basic graphical methods and numerical summaries; writing simple reports of a data analysis; basic concepts of statistics (populations and sampling); confidence intervals for means and proportions; testing for differences in means and proportions; p-values.</p> <p>Data analysis is an international language using internationally recognised techniques developed and refined by statisticians and analysts across the globe. Mastery of the subject-specific learning outcomes, 1 to 4, will equip students to apply the theories and techniques of this module in a wide range of international contexts.</p> <p>In compiling the reading list, consideration has been given to the range of texts that are available internationally and a selection of texts has been identified to complement the delivery of the material. Examples with an international dimension are included in the module where appropriate.</p>			

Module Delivery Method					
Face-To-Face	Blended	Fully Online	Hybrid	Hybrid 0	Work-Based Learning
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

See Guidance Note for details.

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Add name

Term(s) for Module Delivery

(Provided viable student numbers permit).

Term 1	<input checked="" type="checkbox"/>	Term 2	<input checked="" type="checkbox"/>	Term 3	<input checked="" type="checkbox"/>
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Learning Outcomes: (maximum of 5 statements)

These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.

At the end of this module the student will be able to:

L1	Demonstrate knowledge and critical understanding of the underlying concepts and principles of data analytic techniques;
L2	Demonstrate the capability to use a range of established techniques and a reasonable level of skill in the use of basic graphical and numerical summaries of data, confidence intervals and testing for means and proportions.
L3	Select and deploy the concepts and principles in the use of data analytics.
L4	Make appropriate use of a statistical package, including basic graphical and numerical summaries of data, and testing for means and proportions.

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 Gain knowledge and understanding in problems relating to quantitative and qualitative information.
Practice: Applied Knowledge and Understanding	SCQF Level 8 Apply knowledge to solve problems relating to quantitative and qualitative information.

Generic Cognitive skills	SCQF Level 8 Appreciate how data analytics contribute to the development of an organisation's business strategy.	
Communication, ICT and Numeracy Skills	SCQF Level 8 Make effective use of IT facilities for solving problems; Communicate straightforward arguments and conclusions reasonably accurately and clearly.	
Autonomy, Accountability and Working with others	SCQF Level 8 Manage their own learning and development.	
Pre-requisites:	Before undertaking this module, the student should have undertaken the following:	
	Module Code:LNDN07002	Module Title: Economic Principles
	Other:	
Co-requisites	Module Code:	Module Title:

*Indicates that module descriptor is not published.

Learning and Teaching	
<p>In line with UWS' Curriculum Framework, providing a flexible and hybrid, student-centred and inclusive approach to learning and teaching, the module has been designed around the delivery of engaging, activity and discussion-based workshops, nurtured by meaningful online content, including short videos, reading materials, quizzes, etc. This approach creates more flexibility for students, while also enhancing deeper learning through engagement with peers and teaching staff, both online and in the classroom. This is further supported by the assessment approach adopted, enabling students to develop both academic and employability-focused knowledge and skills within international business — all aligned with the overarching purpose and aims of the programme.</p>	
<p>Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:</p>	<p>Student Learning Hours (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)</p>
Lecture/Core Content Delivery	36
Independent Study	164
	200 Hours Total

****Indicative Resources: (eg. Core text, journals, internet access)**

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

Zuur, A. (2009) A Beginner's Guide to R, New York: Springer Mann, P. (2017) Introductory Statistics, 9th Edition, Wiley

Mann, P. (2017) Introductory Statistics, 9th Edition, Wiley

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 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, and course-related learning resources on Aula, and complete assessments and submit these on time.

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](#).

Necessary adjustment is made to serve the specific needs of students with special learning needs. For instance, the lesson materials could be provided in advance or in accessible format if needed.

(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 & Events
Assessment Results (Pass/Fail)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
School Assessment Board	Accounting, Finance and Law

Moderator	Dr Attahir Abubakar
External Examiner	David Moore
Accreditation Details	NA
Changes/Version Number	1.1

Assessment: (also refer to Assessment Outcomes Grids below)
Assessment 1 – Online test 40%
Assessment 2 – Written assessment 60%
(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.)

Assessment Outcome Grids (See Guidance Note)

Component 1						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Online test	✓	✓	✓	✓	40	

Component 2						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Written assessment	✓	✓	✓	✓	60%	
Combined Total for All Components					100%	

Change Control:

What	When	Who
Module coordinator, moderator and external examiner details	08/02/2024	Dr A Egbulonu
Assessment description	08/02/2024	Dr A Egbulonu
Equality and Diversity	08/02/2024	Dr A Egbulonu
Core text	08/02/2024	Dr A Egbulonu

Version Number: 1.1