MODULE DESCRIPTOR

Module Title

Introduction To Data Analytics And Visualisation

Reference	CB1012	Version	2
Created	February 2024	SCQF Level	SCQF 7
Approved	October 2018	SCQF Points	30
Amended	April 2024	ECTS Points	15

Aims of Module

To enable students to apply the principles of Data Analytics and Visualisation to inform business processes and decisions.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Evaluate different data analysis techniques in response to a business problem
2	Appraise different types of data visualisation and the contexts within which they may be applied
3	Prepare and manage data sets and sources for data visualisation
4	Apply data visualisation tools and techniques to explore, analyse and present data

Indicative Module Content

Introduction to data analytics and the data analytics lifecycle (CRISP-DM). A broad overview of key analytics concepts and principles including descriptive analytics and forecasting. Principles of data visualisation; data preparation; data representation; chart types; data-driven storytelling; dashboard design; ethics of visualisation. The module engages with UNESCO's Education for Sustainable Development Normative and Integrated problem-solving competencies, allowing students to develop the ability to understand and reflect on the norms and values that underlie business actions and decisions; and to negotiate sustainability values, principles, goals, and targets, in a context of working with multiple case-studies and employing problem-solving strategies through data visualisation.

Module Delivery

The module is delivered via online exercises, workshops, case studies and lab tutorials.

Module Ref:	CB1012 v2

Indicative Student Workload	Full Time	Part Time
Contact Hours	48	N/A
Non-Contact Hours	252	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Individual Portfolio Assessment comprising of a dashboard and a reflective report				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student needs to achieve an A in C1.
B	The student needs to achieve a B in C1.
C	The student needs to achieve a C in C1.
D	The student needs to achieve a D in C1.
E	The student needs to achieve an E in C1.
F	The student needs to achieve an F in C1.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

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INDICATIVE BIBLIOGRAPHY

1	ACHARYA, S. and CHELLAPPAN, S. (2017). *Pro Tableau.* New York: Apress
2	FEW, S. (2012). *Show Me The Numbers.* Burlingame, CA: Analytics Press
3	FOREMAN, J. (2013). *Data Smart: Using Data Science to Transform Information Into Insight.* Indianapolis: Wiley
4	KNAFLIC, C. (2015). *Storytelling with data.* New Jersey: Wiley
5	MAYER-SCHONBERGER, V. and CUKIER, K. (2013). *Big data. A Revolution that will transform how we live, work and think.* London: John Murray
6	MURRAY, D. (2016). *Tableau your data!.* Indianapolis: Wiley
7	PROVOST, F. and FAWCETT, T. (2013). *Data science for business.* Sebastopol, CA: O'Reilly Media