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MODULE DESCRIPTOR

Module Title

Data Visualisation

Reference	CM4125	Version	3
Created	June 2022	SCQF Level	SCQF 10
Approved	May 2020	SCQF Points	15
Amended	July 2022	ECTS Points	7.5

Aims of Module

To introduce, appraise and interpret data visualisation techniques, and understand the challenges associated with visualising large datasets.

Learning Outcomes for Module

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

1	Critically appraise a variety of data visualisation techniques in terms of psychology, design, effectiveness and appeal to a wider audience.
2	Interpret data visualisations and explain what conclusions can be drawn from them in terms of data analysis.
3	Understand the challenges of visualising large datasets.
4	Translate numerical and categorical data into coherent pictorial representations.
5	Create novel and interactive data visualisations which lucidly exhibit particular dataset features using publicly available data.

Indicative Module Content

1. Introduction to data visualisation 2. Tools for data visualisation 3. Data loading and preprocessing 4. Data cleaning 5. Designing graphs 6. Understanding and creating infographics 7. Visualising multiple variables 8. Data Dashboards

Module Delivery

Key concepts are introduced and illustrated through lectures, workshops and directed reading.

Indicative Student Workload	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	120	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	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:	50%	Outcomes Assessed:	1, 2, 3

Description:	A coursework involving a report, focussing on importing, analysing and cleaning data repositories.

Component 2

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	4, 5

Description:	A coursework involving the creation of a data visualisation.

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on a 50% weighting for C1 and 50% weighting for C2. An overall minimum grade D is required to pass the module.

		Coursework:						
		A	**B**	**C**	**D**	**E**	**F**	**NS**
Coursework:	**A**	A	A	B	B	C	E	
	B	A	B	B	C	C	E	
	C	B	B	C	C	D	E	
	D	B	C	C	D	D	E	
	E	C	C	D	D	E	E	
	F	E	E	E	E	E	F	
	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.

INDICATIVE BIBLIOGRAPHY

1 McCandless, D. 2014. Knowledge is Beautiful. 1st Ed. Williams Collins.

2 Cairo, A. 2016. The Truthful Art. 1st Ed. Pearson.

3 McCandless, D. 2013. Information is Beautiful. 1st Ed. Collins.

4 Microsoft Power BI Community https://community.powerbi.com/t5/Themes-Gallery/bd-p/ThemesGallery

5 Korchia, N, and Voignier, F. From Hadoop to the Cloud: How to simply Modernize Analytics Applications? https://indexima.com/portfolio/webinar-oneclick-aws/?cid=5c7bf3cce317a76bb3191a42&utm_medium=email&utm_campaign=5e9864e4eeec3720896ef66d&utm_source=plezi-smart-campaign

6 Tableau Certified Associate Exam Guide https://www.udemy.com/course/tableau-certified-associate-exam-guide/

7 Power BI A-Z: Hands-On Power BI Training for Data Science! https://www.udemy.com/course/mspowerbi/

8 Plotly, Dash App Gallery https://dash-gallery.plotly.host/Portal/