AMITY GLOBAL INSTITUTE

MODULE SYLLABUS

Course	Master of Science Data Science Awarded by Teesside University
Module Title	Data Visualisation
Module Syllabus No. (if any)	CIS4009-N
Content	The field of information visualisation has expanded rapidly with many designers generating new forms of charts through which to view quantitative data. This module explores the range of charts available from the traditional such as bar charts and pie charts, to the more novel such as stream graphs, tree maps, sunbursts, and force diagrams, and examines their mathematical properties. By accurately representing quantitative data using appropriate charts, the intended audience can make their own interpretations of the data and identify emerging patterns and themes that are more readily recognisable in chart form than in the form of raw data. The module will be assessed by an in-course assignment, comprised of two elements, requiring the student to work independently to evaluate existing visualisations, and to work in a team to perform research into a mathematical topic.
No. of Teaching Hours	36 hours
Teaching Methods	Lectures
Assessment Methods and Weightages	40% Individual coursework 60% Group assignment
Skills for Maximising Learning Outcomes	Reading and Research
Dates of Examinations, Major Assessments and Assignments	See University Academic Calendar
Recommended Text	Data visualisation: a handbook for data driven design 9781473912144 Kirk, Andy 2016
Additional Reference Texts (if any)	
Additional Remarks (if any)	

No.	Learning Outcomes/Aims
1	Reflect upon and critically appraise an implemented solution against a given brief
2	Collaborate effectively with others appropriate to the professional/academic context.
3	Demonstrate a systematic and critical understanding of the range of charts suitable for representing large multidimensional datasets and the mathematical theory underpinning them.
4	Develop critical responses to the theoretical discourse on human visual perception of shape and form.
5	Integrate and synthesise diverse knowledge concepts and theory to analyse and design a solution for a given brief with clear reasoned justifications.
6	Demonstrate the ability to autonomously and effectively plan and execute a project to satisfy a complex brief.
7	Incorporate a professional dimension in researching new and presenting emerging forms of charts.
8	Enable the student to make appropriate selections from a wide range of charts for the purposes of analysing the data. Develop the skills to present the data using appropriate graphics which accelerates the comprehension of multi -dimensional datasets and allows the audience to identify narratives. Provide a mathematical understanding of the structure and creation of each chart.

Note: All Information provided to Amity will be kept strictly confidential except for those required under statutory requirements and by government authorities and relevant university partners and accreditation bodies as part of the regulatory or course requirements.