

Module Details	
Module Title	Supply Chain Analytics and Technology Management
Module Code	OIM7504-B
Academic Year	2023/4
Credits	20
School	School of Management
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Seminars	6
Laboratories	12
Lectures	24
Directed Study	158

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2

Module Aims
To recognise and tackle supply chain issues using appropriate data analytics techniques and technologies, together with an understanding of the strengths and limitations of applying these methods. This includes practical knowledge on different open-source analytical software, such as 'R' for quantitative, descriptive, and predictive analytics.

## Outline Syllabus

The module will cover topics such as:

- Use of Technology Supply Chain
- Supply Chain Optimization through Technology Application
- Logistics Planning and Modelling
- Inventory management, warehousing, storage and intelligent systems
  
- Demand Management Data Analytics for Supply Chain Management includes:
  - Descriptive data analytics for Supply Chains
  - Correlation tests
  - Hypothesis testing
  - Tests for independence (Chi-Square Statistics)
  - T-test
  - ANOVA
  - Predictive Analysis using (Multiple) Linear Regression
  - Use of R programming for Supply Chain Analytics.

## Learning Outcomes

Outcome Number	Description
1	Provide critical awareness of the nature of various technologies and data analytics methods, software and tools to stimulate appreciation on their value in solving logistics and supply chain management issues.
2	Apply methodologies used in supply chain analysis and modelling, including statistics, regression, optimization and probability.
3	Demonstrate knowledge and understanding on usage of data analytics tools for complex business decisions.
4	Be able to communicate findings effectively to specialist and non-specialist audiences.

## Learning, Teaching and Assessment Strategy

Learning will be directed, supported and reinforced through a combination of online lectures, face to face and online computer labs and tutorials, discussion groups, directed and self-directed study. To assess against the Learning Outcomes, varied assessment methods will be used such as network design using analytics software; and reports as described in the assessment section.

**Summative Assessment:** You will produce a report in which you analyse relevant supply chain and logistics data and discuss findings (2000 words). This will account for 40% of the overall module mark.

You will also have a closed-book exam, accounting for 60% of the overall module mark.

## Mode of Assessment

Type	Method	Description	Weighting
Summative	Coursework - Written	Case study: design the supply network and produce a report and reflective portfolio.	100%

## Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>

*Please note:*

*This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.*

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