Module code	DSB702	**Level**	7
Module title	**Business Analytics**	**Credit value**	10
Programme(s) on which the module is taught	MSc Data Science in Business	**ECTS Credits**	5
		Notional learning hours	100

1. Pre-requisite modules

None

2. Module aims and objectives

Modern businesses are increasingly driven by a need to gather, visualise and monetise digital information. This module provides students with a solid grounding in a selection of Industry standard tools used in the exploration and visualisation of data in all forms. The module is applied in its delivery, with an expectation on students to acquire practical industry-aligned skills. They will become proficient in ethically obtaining, preparing, and visualising data from various sources. Students will learn techniques to develop and maximise analytical and visual impact.

3. Learning outcomes

Upon successful completion of this module, you will be able to:

LO 1: Understand and critically reflect on the role of the analyst based on a systematic understanding and knowledge of data and analytics.
LO 2: Analyse and critically evaluate complex situations to solve problems, using data.
LO 3: Use the tools and approaches of data analytics to gain valuable insights into consumer behaviour to drive strategy
LO 4: Create flexible, innovative data –driven solutions for strategic objectives
LO 9: Negotiate the ethical, legal and regulatory dimensions of data analysis, to deliver sustainable outcomes.

4. What you will do on the module

You will gain a solid grounding in skill of exploring and visualising business data using key data analytics tools. You will focus predominantly on Microsoft Excel but will also receive introductorylevel exposure to industry-focused platforms, such as SAS or SPSS. The emphasis in the module is around descriptive analytics and effective visualisation for business audiences. You will learn how to use a wide variety of functions, visualisations, and interaction techniques to provide business stakeholders with the means to make key decisions on the path to optimising business processes and managing the customer journey.

5. Learning and teaching methods

The following learning and teaching methods are employed on this module:

- Seminar/Lab sessions
- Self-directed online exercises
- Case study group work
- Discussion forums
- Guest speakers

The notional learning hours for this module are:

10 credit module – 100 learning hours	
Directed learning	**33 hours**
Workshops / classes	33
Collaborative Learning	**5 hours**
Asynchronous interaction	5
Self-directed learning	**62 hours**
Self-Directed learning (pre & post class)	31
Preparation for assessment, response to feedback and summative assessment	31
Total	**100 hours**

6. Assessment and relative weightings

The assessment strategy for this module comprises both formative and summative assessment.

Summative Assessment: Analytics Project Report, 2500 words (+/- 10%) (100% TMM)
Using the techniques and skills learnt in applied lab sessions, you will extract insights from one or more data sources and provide a textual and visual narrative for the benefit of an organisational protagonist (such as a customer or a manager) or a team. You will combine incisive data analysis and effective information visualisation to convey a compelling business narrative. This narrative should be presented in a professionally authored report.

Formative work for Assessment
Prior to this summative submission, you will present a sketch draft of the report. This should highlight the overall structure, a brief overview of the direction of the report, and any provisional findings you may have generated. This work will be reviewed, and feedback given.

7. Mapping of assessment tasks for the module

Assessment tasks	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Analytics Project Report	x	x	x	x	n/a	n/a	n/a	n/a	x

8. Key resources (e.g. reading, audio-visual)

Key Reading

Winston, Wayne, David. (2019). *Microsoft Excel 2019 Data Analysis and Business Modeling*. Microsoft Press.

Fraser, Cynthia. (2019). *Business Statistics for Competitive Advantage With Excel 2019 and JMP Basics, Model Building, Simulation and Cases*. Springer International Publishing. Alexander, Michael. (2018). *Excel 2019 Bible*. Wiley

Web Resources

Excel for Business Analysts (lynda.com)

Excel Fundamentals (YouTube)

Statistics Fundamentals (YouTube)

Learning Library | JMP