1. KentVision Code and title of the module

BUSN9165: Big Data Analytics and Visualisation

## Division which will be responsible for management of the module

Kent Business School

## The level of the module (Level 4, Level 5, Level 6 or Level 7)

Level 7

## The number of credits and the ECTS value which the module represents

15 credits (7.5 ECTS)

## Which term(s) the module is to be taught in (or other teaching pattern)

Spring

## Prerequisite and co-requisite modules and/or any module restrictions

**None**

## The course(s) of study to which the module contributes

Compulsory to the following courses:

MSc Business Analytics

MSc Business Analytics (HDA)

Optional to the following courses:

MSc Logistics and Supply Chain Management

## The intended subject specific learning outcomes. On successfully completing the module students will be able to:

8.1 Display conceptual understanding of big data analytics and visualisation techniques.

8.2 Critically evaluate and apply big data techniques using software such as Apache Spark and Python.

8.3 Develop a systematic understanding in order to build and apply skills in big data network analytics, text mining, and social media data mining.

8.4 Demonstrate critical awareness of how managers and executives utilise big data analytics for business value creation by improving their operational, social, and financial performance and create opportunities for new business development.

8.5 Demonstrate a systematic understanding of database management concepts and their connections with big data analytics.

## The intended generic learning outcomes. On successfully completing the module students will be able to:

9.1 Work on complex issues associated with big data analytics and business value creation.

9.2 Scrutinize different types of data for solving complex business problems and produce reports to support business planning.

9.3 Systematically, critically, and creatively present findings to both technical and non-technical managers and executives.

9.4 Use computer tools to solve complex practical problems of direct relevance to contemporary business operations and management.

## A synopsis of the curriculum

This module aims to introduce students to the power of big data analytics and data visualisation techniques in contributing to business value creation. The module will also enable students to solve a variety of complex data centred business problems using computer software tools like Apache Spark and Python.

The module covers two main themes as follows.

1. Theoretical understanding of big data analytics: This part involves learning about the theoretical foundations of big data analytics, text mining, and social media data mining. It also introduces the effective use of data visualisation and database management concepts and their links with big data analytics. Example applications of big data analytics and visualisation techniques discussed within the module will focus on addressing contemporary challenges faced by industry.

2. Building practical skills and managerial insights: In this part of the module, students will learn how to interact with both SQL and NoSQL databases and how to solve business problems using advanced functions within the Apache Spark and Python software platforms. Students will be guided through demonstrations involving a variety of exercises that will prepare them to be data-driven managers and executives capable of utilising big data analytics for business value creation.

## Reading list

## The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

## The most up to date reading list for each module can be found on the university's [reading list pages](https://kent.rl.talis.com/index.html).

## Contact Hours

Private Study: 114

Contact Hours: 36

Total: 150

## Assessment methods

* 1. Main assessment methods

VLE Test (45 minutes): 20%

Individual Report (3000 words): 80%

13.2 Reassessment methods

Reassessment Instrument: 100% coursework

## Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section 12) and methods of assessment (section 13)

**Module learning outcomes against learning and teaching methods:**

| **Module**  **learning**  **outcomes** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lectures | ✓ |  |  | ✓ | ✓ | ✓ |  | ✓ |  |
| Seminars/  Terminals | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  | ✓ |
| Independent  Study | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Module learning outcomes against assessment methods:**

| **Module**  **learning**  **outcomes** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VLE Test | ✓ |  |  | ✓ | ✓ | ✓ |  |  | ✓ |
| Individual  Report | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## Inclusive module design

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

## Campus(es) or centre(s) where module will be delivered

Canterbury

## Internationalisation

The datasets and examples are international in nature and the module is applicable across countries.

**DIVISIONAL USE ONLY**

**Module record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

| Date approved | New/Major/minor revision | Start date of delivery of (revised) version | Section revised  (if applicable) | Impacts PLOs (Q6&7 cover sheet) |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |