1. KentVision Code and title of the module

BUSN9087: Management Analytics

## 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 Leadership and Management

Optional to the following courses:

MSc Marketing, MSc International Business and Management, MSc Finance and Management.

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

8.1 Demonstrate a comprehensive understanding of analytics models and their importance for delivering management innovation and drive organisational change.

8.2 Demonstrate conceptual understanding of the use of modern scientific management techniques and how real-world complex problems can be represented and solved analytically using computer software such as Microsoft Excel®.

8.3 Recognise and deal with managerial problems that can be modelled and analysed using quantitative techniques such as optimization, decision analysis, simulation and statistical models.

8.4 Demonstrate critical awareness of how managers and executives utilise analytics models for business value creation by improving their operational, social, and financial performance.

8.5 Address various real-world complexities and incorporate these into the modelling framework in order to prescribe actionable recommendations.

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

9.1 Demonstrate highly developed analytics, critical and intellectual skills, which enable them to solve complex business/management/industry problems in a rapidly changing environment.

9.2 Demonstrate an ability to select the most appropriate analytics technique for a particular business/management/industrial problem

9.3 Independently analyse the outcome of an analytics model and present their findings in a clear and rigorous manner.

9.4. Communicate effectively to a variety of audiences and/or using a variety of methods.

## A synopsis of the curriculum

The aim of this highly practical module is to give students an intensive grounding in analytics modelling and hands-on experience in using industry-standard spreadsheet software (Microsoft Excel®) to structure, analyse and solve a variety of problems encountered in business and management.

Students will learn how to build practical analytics models using descriptive analytics techniques to visualise and interpret data; predictive analytics techniques to predict future outcomes and trends; and prescriptive analytics techniques, such as optimisation and decision analysis, to support decision making in complex situations.

Students will be exposed to a variety of case studies that will prepare them to be data-driven managers and executives capable of utilising analytics for business value creation. Practical demonstrations will include examples in finance (e.g., optimal investment strategies, portfolio optimisation), human resources (e.g., staff scheduling, workforce planning, employee performance management), marketing (e.g., product development, customer classification, marketing campaigns optimisation), supply chain management (e.g., optimal transport routing, production scheduling) and project management (e.g., task scheduling, resource planning, project completion time optimisation).

## 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: 117

Contact Hours: 33

Total: 150

## Assessment methods

* 1. Main assessment methods

30% Group project including presentation (10%), spreadsheet model (10%) and 1500-2000 word report (10%)

20% VLE Test

50% Individual computer-based project including spreadsheet model and report (1500-2000 words)

13.2 Reassessment methods

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 outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |
| Lectures | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| Computing labs |  | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

**Module learning outcomes against assessment methods:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 |
| Group project including model, presentation and report | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| VLE Test | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| Individual computer based project | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

Students must achieve a pass in the individual computer based project to ensure all learning outcomes have been met.

## 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

In the computer lab workshops, students use on-line databases to access international datasets which can be used to analyse the international markets and the international business environment. Students can then perform an international analysis when working on the assessed group written report and assignments from other modules too. Finally, various empirical examples based on international datasets are analysed throughout the term.

**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) |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |