1. **Title of the module**

BUSN3720 (CB372) Mathematics and Statistics for Accounting and Finance

1. **School or partner institution which will be responsible for management of the module**

Kent Business School

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 4

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

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

Autumn or Spring

1. **Prerequisite and co-requisite modules**

None

1. **The programmes of study to which the module contributes**

BA Accounting & Finance and associated programmes, but not including joint honours programmes with Economics and Mathematics

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

8.1 recognise and recall the range of quantitative concepts, tools and techniques that are useful in solving everyday problems in business, management and accounting.

8.2 represent problems in a mathematical/statistical form to aid decision making.

8.3 apply quantitative techniques in the solution of problems.

8.4 assess the strengths and weaknesses of a problem with regards to its business, management and accounting context.

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

9.1 analyse quantitative information.

9.2 process quantitative information from various sources to develop independent conclusions

9.3 effectively manage own use of the time, tools and resources required to analyse and solve a problem of a quantitative nature.

9.4 express arguments, explanations, evaluations and conclusions effectively in writing

1. **A synopsis of the curriculum**

The module will cover the following topics:

* + Summarising data with frequency distributions, measures of central tendency, spread and skewness. Visual representation of data in the form of graphs and charts.
  + Probability: The relationship between probability, proportion and percent, addition and multiplication rules in probability theory, Venn diagrams.
  + Distributions: Discrete (Binomial, Poisson) and Continuous (Uniform, Exponential, Normal).
  + Sampling and hypothesis testing and its use in inference; applications of sampling in Quality Control, business and accounting.
  + Regression and correlation: scatter plots; simple regression.
  + Decision making: payoff tables and decision strategies; decision trees; the Bayesian approach.
  + Functions, equations and inequalities: linear functions, solving linear equations and solving simultaneous linear equations graphically; simple polynomials such as quadratic and cubic functions; manipulation of inequalities.
  + Linear Programming – problem formulation and the graphical solution method.
  + Calculus: The concepts of differentiation and integration, and their relationship; stationary values.
  + Financial mathematics: Logarithms and exponential functions. Simple and Compound interest, annuities and perpetuities, loans and mortgages, sinking funds and savings funds, discounting to find NPV and IRR and interpretation of NPV and IRR

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Morris, C. (2011) *Quantitative Approaches in Business Studies (8th ed.)*, London: FT Prentice Hall

Swift, L. and Piff, S. (2014) *Quantitative Methods for Business, Management and Finance*, (4th ed.), Andover: Palgrave Macmillan

Waters, D. (2011) *Quantitative Methods for Business* (5th ed.), London: FT Prentice Hall

1. **Learning and teaching methods**

Total contact hours: 33

Private study hours: 117

Total study hours: 150

1. **Assessment methods**
   1. Main assessment methods

VLE MCQ Test - Maths (15%)

VLE MCQ Test - Stats (15%)

Examination, 2 hours (70%)

13.2 Reassessment methods

Reassessment Instrument: 100% exam

1. **Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *9.1* | *9.2* | *9.3* | *9.4* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |
| *Private Study* | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** |
| *Lectures* | **×** | **×** | **×** |  | **×** | **×** | **×** |  |
| *Seminar* | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** |
| *Revision session* | **×** | **×** | **×** |  | **×** | **×** | **×** |  |
| **Assessment method** |  |  |  |  |  |  |  |  |
| *VLE MCQ Tests* | **×** | **×** | **×** |  | **×** | **×** | **×** |  |
| *Examination* | **×** | **×** | **×** | **×** | **×** | **×** | **×** | **×** |

1. **Inclusive module design**

The School 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

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

Students study mathematical and statistical concepts and problems which can be applied in an international business environment

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 07/01/2019 | Minor | January 2020 | 5, 13 | No |
|  |  |  |  |  |

Revised FSO Jan 2018