UNIVERSITY of BRADFORD

# Module Descriptor

| Module Details | |
|---|---|
| **Module Title:** | Risk Management and Derivatives |
| **Module Code:** | AFE6013-B |
| **Academic Year:** | 2019-20 |
| **Credit Rating:** | 20 |
| **School:** | School of Management |
| **Subject Area:** | Accounting, Finance and Economics |
| **FHEQ Level:** | FHEQ Level 6 |
| **Pre-requisites:** | Introduction to Finance 2016-17 |
| **Co-requisites:** | |

## Contact Hours

| Type | Hours |
|---|---|
| Lectures | 24 |
| Tutorials | 12 |
| Directed Study | 164 |

## Availability

| Occurrence | Location / Period |
|---|---|
| BDA | University of Bradford / Semester 1 (Sep - Jan) |

## Module Aims

This module aims to equip you with a sound understanding of risk governance, its methods and practicalities and its potential management through derivative products. You will develop the requisite conceptual and analytical skills for identifying the form and nature of risk, for evaluating its extent and consequences, and for formulating effective measures involving derivatives as an effective risk reduction technique. It develops new tools for risk management, but also extends those introduced in previous accounting and finance modules, enabling you to make prudent and valuable judgments.

## Outline Syllabus

1. Rationale for risk management

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| 2. | Alternative forms of risk |
| 3. | Concepts of risk and uncertainty |
| 4. | Benefits of risk management |
| 5. | Measuring asset and portfolio volatility |
| 6. | VaR and ETL as risk measures |
| 7. | Bond Immunisation |
| 8. | Forwards; Futures and Swaps |
| 9. | Hedging cash flows and interest rate with forwards |
| 10. | Options |
| 11. | Binomial and Black-Scholes option pricing |
| 12. | Hedging with options |
| 13. | Real Options |

## Learning Outcomes

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| 1 | 1a Evaluate the role and relevance of risk management and derivatives within the context of a responsible, sustainable organization.<br>2b Distinguish the differential consequences of making effective and imprudent decision making in the face of risk and uncertainty.<br>3c Choose and apply appropriate software as a decision aid. |
| 2 | 2a Identify and apply the basic probability, statistical; and analytical methods in constructing relevant risk management measures and derivative pricing models.<br>2b Critically appraise and use alternative risk management tools for evaluating risk and risky outcomes.<br>2c Critically appraise and apply various derivative pricing models used in risk management. |
| 3 | 3a Apply appropriate analytical and numerical skills in problem solving.<br>3b Plan and manage your own applied and intellectual learning.<br>3c Convey through discussion, presentations and submissions complex issues in a non-technical way. |

## Learning, Teaching and Assessment Strategy

Face-to face teaching through lectures and seminars is the primary method for disseminating and evaluating the key concepts and analytical techniques. The theories and models are supplemented by a range of learning opportunities designed to instill their use and demonstrate their applicability in real-world contexts. These include relevant case studies and exercise sets, which are prepared by student groups and discussed during the weekly seminar sessions. These sessions offer you a structured opportunity to apply your theoretical and conceptual knowledge, to assess the relevance of the theories and models in real-world contexts, and to evaluate your own understanding and knowledge. You are expected to have a working knowledge of Excel, or equivalent. Seminars also aid personal reflection, as well as providing a forum for discussing the practicalities in deploying risk management techniques in the real-world. Oral feedback is available at all face-to-face sessions. The module is formally assessed by course-work and examination, LO; 1a,1b,1c, 2a,2b,2c,3a,3b,3c.

## Mode of Assessment

| Type | Method | Description | Length | Weighting |
|---|---|---|---|---|
| Summative | Examination - closed book | Closed Book examination | 2 hours | 70% |
| Summative | Coursework | Coursework | -2000 words | 30% |

| 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.*