



## **Module Specification**

### **Credit Risk Analysis and Management**

Version: 2024-25, v4.0, 23 Jan 2024

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## Part 1: Information

**Module title:** Credit Risk Analysis and Management

**Module code:** UMAD5W-15-3

**Level:** Level 6

**For implementation from:** 2024-25

**UWE credit rating:** 15

**ECTS credit rating:** 7.5

**College:** College of Business and Law

**School:** CBL Bristol Business School

**Partner institutions:** None

**Field:** Accounting and Finance

**Module type:** Module

**Pre-requisites:** None

**Excluded combinations:** None

**Co-requisites:** None

**Continuing professional development:** No

**Professional, statutory or regulatory body requirements:** None

## Part 2: Description

**Overview:** Overall, the purpose of this module is to introduce students to the concept of credit risk and acquaint them with the theoretical as well as practical applications with a view to efficiently analysing, reporting and managing credit risk.

**Features:** Not applicable

**Educational aims:** The module aims to enable students to develop an appreciation for the subject area of credit risk, its potential and practical significance and inspire

students to actively pursue research in this area and remain up-to-date with the rapid developments in the various constituent areas of credit risk.

In addition, the educational experience may explore, develop, and practise, but not formally discretely assess, the following:

Communication of information, ideas, arguments, concepts, theories and development of an argument in a clearly and effectively organised essay or report.

Use of IT and computer skills in the identification of source material, capture and manipulation of data and support of research.

Planning and undertaking tasks, developing criteria to evaluate performance and seeking and making use of feedback.

**Outline syllabus:** Financial Risk Management:

Basic risk types and key measurement tools

Creating value with financial risk

Credit Risk Management:

Introduction to Credit Risk Management

Credit Risk Assessment Framework

Approaches to Credit Risk Management:

Empirical modelling (incl. market-based models)

Structural modelling

Reduced-form modelling

The main credit risk equation  $EL = PD \times LGD \times EAD$ :

Expected and Unexpected Losses (EL and UL)

Modelling of Probability of Default (PD)

Modelling of Loss Given Default (LGD)

Modelling of Exposure at Default (EAD)

Credit ratings / credit scoring:

A taxonomy of credit ratings (external, internal, market-based, sovereign)

Accounting, financial, market-based and cash flow ratio analysis; analytic relationship models

Credit risk scorecards

Credit risk portfolio management:

Modern Portfolio Theory (MPT) revisited

Portfolio Effects in Credit Risk: Risk Contributions and

Unexpected Losses

Value-At-Risk (VaR) and Credit VaR:

Introduction to VaR

VaR modelling approaches (correlation, historical simulation and Monte Carlo simulation)

Credit VaR models, backtesting and stress testing

Financial Derivatives:

Introduction to financial derivatives

The binomial tree approach

The Black-Scholes-Merton model

Introduction to the “Greeks”

Credit derivatives:

A taxonomy of credit derivatives (CDOs, CDSs, CLNs, etc)

The Structuring Process and Securitisation

The Regulatory View of Credit Risk:

Capital and regulation

From Basel I to current Basel regulations

Regulatory aspects of securitisation

### **Part 3: Teaching and learning methods**

**Teaching and learning methods:** Module delivery will be based on 3 hours of scheduled learning and teaching activities per teaching week, with an additional 3 hours of online sessions spread throughout the teaching block

The main purpose of the large group sessions will be to convey core material and engage students in critical thinking over the theories and practices relating to credit risk and its management.

The workshops, will aim to enable students to apply the knowledge gained in the lectures and also emulate industry models and practices in a facilitated environment. Specific emphasis will be placed on the use of modern technologies for the purposes of credit risk analysis and management, as such the workshops will take place in PC labs.

Students will be directed on how the resources on this site should be used to develop the skills that will underpin their studies in the module handbook and/or via Blackboard.

Lectures: 1 hour per week, total 11 hours

Workshops: 2 hours per week, total 22 hours

Drop in: 3x 1 hour sessions

Independent Study: 114 hours

Total: 150 hours

Independent Study includes, but is not necessarily restricted to, engaging in essential reading, workshop preparation, contribution to online discussion, development of academic and generic skills, assignment preparation and completion, research required for the purposes of the module, keeping up-to-date with credit risk developments and assessment preparation.

**Module Learning outcomes:** On successful completion of this module students will achieve the following learning outcomes.

**MO1** Model the credit risk of financial assets

**MO2** Critique the regulatory environment of credit risk

**MO3** Provide advice on how to enhance credit risk procedures in financial institutions

**Hours to be allocated:** 150

**Contact hours:**

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://readinglists.uwe.ac.uk) via the following link

<https://uwe.rl.talis.com/modules/umad5w-15-3.html>

## Part 4: Assessment

**Assessment strategy:** The module will be assessed by means of an Individual Business Report (2,000 words) with supporting calculations (100%).

Non-assessed formative feedback will be provided in class group work and individual practical problems that students will be expected to attempt most weeks.

**Assessment tasks:**

**Report (First Sit)**

Description: Individual Business Report (2,000 words) with supporting calculations

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

**Report (Resit)**

Description: Individual Business Report (2,000 words) with supporting calculations

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

## **Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Banking and Finance [NEU] BSc (Hons) 2022-23

Business Management with Accounting and Finance {Top-Up} [Frenchay] BA (Hons) 2024-25

Banking and Finance [Frenchay] BSc (Hons) 2022-23

Accounting and Finance {Dual} [Taylors] BA (Hons) 2022-23

Accounting and Finance [Frenchay] BA (Hons) 2022-23

Accounting and Business Management [Frenchay] BA (Hons) 2022-23

Accounting [Frenchay] BSc (Hons) 2022-23

Business Management with Accounting and Finance [Sep][FT][Frenchay][3yrs] - Withdrawn BA (Hons) 2022-23

Banking and Finance {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Accounting and Finance [Sep][SW][Frenchay][4yrs] BA (Hons) 2021-22

Business Management with Accounting and Finance {Foundation}

[Sep][FT][Frenchay][4yrs] BA (Hons) 2021-22

Business Management with Accounting and Finance [Sep][SW][Frenchay][4yrs] - Not Running BA (Hons) 2021-22

Accounting and Management [Sep][SW][Frenchay][4yrs] - Withdrawn BA (Hons) 2021-22

Accounting and Management {Foundation} [Sep][FT][Frenchay][4yrs] - Withdrawn BA (Hons) 2021-22



Accounting and Finance {Foundation} [Sep][FT][Frenchay][4yrs] BA (Hons) 2020-21

Accounting [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Banking and Finance [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Accounting and Business Management [Sep][SW][Frenchay][4yrs] BA (Hons) 2021-22

Accounting and Business Management {Foundation} [Sep][FT][Frenchay][4yrs] BA (Hons) 2021-22

Business Management with Accounting and Finance {Foundation} [Sep][SW][Frenchay][5yrs] BA (Hons) 2020-21

Banking and Finance {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21

Accounting and Finance {Foundation} [Sep][SW][Frenchay][5yrs] BA (Hons) 2020-21

Accounting and Management {Foundation} [Sep][SW][Frenchay][5yrs] BA (Hons) 2020-21

Banking and Finance {Foundation} [Sep][SW][Frenchay][5yrs] - Withdrawn BA (Hons) 2020-21