



Course Unit: 196120 – Analysis and Risk Management

Year 1

Semester 2

ISCED Code: 0412

ECTS: 5

Type of Course Unit: Optional

Delivery Mode: Face-to-face / Distance Learning

Language of Instruction: Portuguese

COURSE COORDINATOR: Maria Clara Pires / Jorge Pires

HOURS OF WORK

TOTAL HOURS	Contact Hours								Hours in autonomous work
	Theory	Theory and practice	Practical and laboratory work	Field work	Seminar	Internship	Tutorial guidance	Other	
125		35							90

Prerequisites (if applicable): Not applicable

LEARNING OUTCOMES (knowledge, skills and competence)

The curricular unit of Risk Analysis and Management aims to enable students to identify, quantify and manage the risks of organizations, in particular, financial institutions. This curricular unit aims to enable students to make decisions in terms of risk management, taking into account the new trends and in the case of Financial Institutions, in harmony with the required capital requirements, respecting the recent changes to the Basel agreements.

After attending the course, the students are expected to:

- Identify, quantify and manage risk in an integrated manner;
- Apply risk quantification methodologies as VaR, among others;
- Develop strategies for risk mitigation.

CONTENTS

1. Risk management - New trends
 - a) Risk classification and management mechanisms;
 - b) Financial hedging instruments;
 - c) The measurement of risk: Volatility
2. The regulation of the financial activity
 - a) Banking and regulation
 - b) Basel I to Basel III - Main impacts and implications
3. Market Risk - Value-at-Risk (VaR)
 - a) Variance and covariance Methodologies
 - b) Historic and Monte Carlo Simulation
 - c) Back Testing
 - d) Stress Testing
4. Operational Risk
 - a) Basic indicator approach, BIA

- b) Standardized approach, STA
 - c) Advanced measurement approach, AMA
5. Credit Risk
- a) Standard Approach
 - b) IRB Foundation
 - c) IRB Advanced
6. Risk Mitigation Methods.

DEMONSTRATION OF THE CONTENTS COHERENCE WITH THE COURSE UNIT'S LEARNING OUTCOMES

The syllabus contents are directly related to the objectives to be achieved by the student. The contents are transversal to the various goals presented, contributing in global terms to the defined goals, and leading students at the end of the UC, to be able to identify, quantify and manage risk (in its different meanings) and to apply appropriate strategies for its mitigation.

TEACHING METHODOLOGIES

The curricular unit is taught in a b-learning regime – from the 2023-2024 onwards. This teaching modality uses face-to-face teaching tools in 2/3 of the training. In 1/3 of the training, it uses distance learning tools. In the online sessions, active learning strategies will be used, with student-centered learning and activities that encourage their participation.

In this unit, when students attend training in the b-learning regime and participate in synchronous sessions, they authorize the recording of these synchronous sessions and their availability in the IPBeja Moodle, without the need for any additional formalism. On the other hand, students must carry out the assignments/exercises that are part of the evaluation of that session. In the face-to-face modality (2/3 of the Curricular Unit) the subject will be exposed and debated with the students; Analysis of case studies and practical exercises; Students are encouraged to review a scientific article in their extra-class work.

DEMONSTRATION OF THE COHERENCE BETWEEN THE TEACHING METHODOLOGIES AND THE LEARNING OUTCOMES

Both in EaD teaching and in presential learning, the contents to be made available on the Moodle platform will be of a mixed nature (theoretical/practical) in order to facilitate the connection between theory and practice. Discussion in class is encouraged in order to develop skills, to deepen the critical spirit and to motivate students towards the more conceptual learning necessary for a deeper mastery of the content taught. The seminar hours will serve to bring specialists from the outside, experts in the topics of the study plan.

EVALUATION METHODS

- Individual work and presentation, discussion in the classroom (60%).
- Written test (40%) that will focus on all chapters of the program, with a minimum grade of 8 points.

Students who do not obtain a final mark of 10 values in the assessment by frequency regime may take a final exam in the same circumstances, that is, they may choose to consider the individual work grade (with a weighting of 60%) and perform the written test with a weighting of 40%, maintaining a minimum grade of 8 points.

For students who do not do the individual work, they may take a global exam (which will be different from the previous one) with a weighting of 100%.

MAIN BIBLIOGRAPHY

Hull, J. (2023). Risk Management and Financial Institutions. 6th Ed. Wiley.

Levinson, Marc. (2020). Guia dos mercados financeiros - Porque existem e como funcionam. Clube do Autor.

Pacheco, L., Tavares, F., Vasco, S., Vieira, E., & Peguinho, C. (2023). Finanças Internacionais. Teoria e Prática. Lisboa: Edições Sílabo.

Pinho, C., Valente, R., Madaleno, M. & Vieira, E. (2019). Risco Financeiro: Medida e Gestão. 2ª Ed. Lisboa: Ed. Sílabo

Complementary:

Bouteillé, S., & Pushner, D. C. (2021). The Handbook of Credit Risk Management: Originating, Assessing, and Managing Credit Exposures. New Jersey: Willey

Neisen, M., & Roth, S. (2018). Basel IV -The next generation of risk weighted assets. New Jersey

Chorafas, D. (2012) - Basel III, the Devil and Global Banking (Palgrave MacMillan Studies in Banking and Financial Institutions), Palgrave Macmillan

Ozdemir, B. (2017). Adapting to Basel III and IV: Re-engineering capital, business mix and performance management practices post-crisis. Risk Books.