

## TEACHING GUIDE

Course Information	
Full Name	Banking and Fintech Seminar
Code	0000012227
Degree	Master in Finance
Taught in	Advantere School of Management
Level	Postgraduate Official Master's Degree
Term	Third Quarter
Credits	2,0 ECTS
Type	Mandatory
Person in charge	Guillermo Ostos Palacios
Office hours	Continuous availability via email

Professor Information	
Professor	
Name	Guillermo Ostos Palacios
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## SPECIFIC COURSE INFORMATION

### Course contextualization

#### Contribution to the professional profile of the degree

Bank management in the 21st century incorporates important differences with respect to the decision systems that governed its strategy and management until a few years ago, including the use of numerous quantitative and qualitative models, automated risk management systems and systems for measuring profitability or the allocation of resources to operations by institutions based on their economic capital. It is therefore worth highlighting two areas of management that will be developed in this course:

1. The management of retail business lines and their associated risks, via automated data-driven decision models, which today can exceed 90% of credit operations in banks and 100% in Fintech. The traditional techniques of analysis and management of borrowers, possible and current, through individual management systems, where each particular borrower is analyzed at the time of admission or denial of credit, and monitored individually over time, once the financing has been granted ... means for financial institutions the allocation of significant human and financial resources. The permanent search for efficiency by lenders has led in the last 30 years to the development of a series of "standardized" credit analysis and management techniques, based on the use of technology and Big Data, which gives lenders great flexibility, control capacity and economic synergies. Models such as Scoring, replacing Rating - still in application for large public and private borrowers - have become commonplace in institutions and have also generated demand for "quant" profiles by the selection departments of banks and Fintechs. As most of the decisions are based on automated decision models, and all these models are in a permanent state of question and improvement, financial institutions have developed and are developing teams specialized in the management and supervision of the efficiency of these models.
2. On the other hand, an adequate management of the risk-return binomial through economic capital and risk-adjusted return have become the main levers of the strategy and internal management of the entities. There are two basic reasons for this:
  - a. On the one hand, the need to control the solvency of financial institutions that are key to the economy of any country. It is not only the need to protect depositors, creditors and investors... but also to protect taxpayers, who are not responsible for management errors in financial institutions nor for the traditional attempts at control of banks by political authorities. And, of course, to protect the solvency of the financial system as a whole, whose prestige is essential in order not to alienate it from the international financial markets. At present, banks, with the peculiar characteristics and vulnerabilities of their business, are course to intense regulation and supervision to protect their stockholders and the system, which has important consequences on the profit and loss accounts and on the level of regulatory capital of the entities.
  - b. On the other hand, the traditional measures of profitability used by companies -and particularly by financial institutions- have lost all their efficiency, insofar as they do not comprehensively consider the risk assumed by operations. Every bank must have an effective internal profitability management system, based on the efficient calculation of its consumption and allocation of economic capital to its operations. Consequently, profitability measures such as ROA and ROE have been replaced by risk-adjusted profitability measures. The correct design and management of these internal models for calculating economic capital and capital consumption makes the difference in the strategy of choice and decision making between one investment and another, and in the correct pricing of credit operations.

Competences – Objectives		
Competences		
<b>CG.3</b>	Teamwork: Apply techniques and methodologies that promote teamwork and mutual collaboration in talent management projects to be carried out with companies and organizations	
	<b>RA1</b>	Be committed to and cooperate in the roles defined for the achievement of goals related to defined and assigned tasks, activities, projects and responsibilities
SPECIFIC		
<b>CE.08</b>	Have an in-depth knowledge of the operation and management systems of credit institutions within the current financial paradigm, as well as other alternative sources of financing, the different bank and non-bank credit products and solutions offered by the financing markets to different financing projects	
	<b>RA1</b>	Understand and know how to negotiate and manage with a bank the credit and liquidity needs of a business project, understanding the keys to the bank's internal mechanisms - treasury, risk and commercial management - to be successful in the credit application
	<b>RA3</b>	Know and know how to apply the new trends and paradigms that directly and indirectly impact the banking sector and Fintech

## THEMES AND CONTENT

Contents-Themes
<b>Credit risk management</b>
<b>Session 1: Risk management by a bank. Analysis and individualized management of companies (1)</b>
<ol style="list-style-type: none"> <li>1. Risk management in a bank. Types of risks and lines of defense</li> <li>2. Alternatives for bank management of credit risks: corporate risks (Rating) vs. standardized risks (Scoring)</li> <li>3. Analysis and management of company risks (1): sectoral analysis and analysis of the company's strategy</li> <li>4. Analysis and management of company risks (2). Analysis of the financial state: Analysis of the income statement. Leverage and solvency. Efficiency in asset management. Operating needs of funds</li> <li>5. Presentation of case study 1 and exercises 1, 2 and 3</li> </ol>
<b>Session 2: Individualized analysis and management of companies (2). Retail risk management (planning)</b>
<ol style="list-style-type: none"> <li>6. Group solution of exercises 1, 2 and 3</li> <li>7. Analysis of profitability and cash flow</li> <li>8. Group solution to case study 1</li> <li>9. Retail risk management (standardized). Planning the launch of a retail banking business line (1):</li> <li>10. Target market segmentation and selection</li> <li>11. Product design and sales processes</li> <li>12. Case study 2 presentation</li> </ol>
<b>Session 3: Retail risk management (Scoring)</b>
<ol style="list-style-type: none"> <li>13. Group discussion case study 2</li> <li>14. Planning throughout the credit cycle</li> <li>15. Introduction to Scoring and predictive analytics</li> <li>16. Global vision of the development process of a decision model. Selection of predictive variables of the business line performance.</li> <li>17. Presentation of exercise 4. The data</li> </ol>
<b>Session 4: Retail risk management (Implementation and monitoring)</b>
<ol style="list-style-type: none"> <li>18. Group discussion case study 2</li> <li>19. Implementation decisions associated with retail risk management</li> <li>20. Monitoring of a Scoring model. Making alternative decisions on the strategy or on the decision model</li> <li>21. Understanding of the main scorecards for the control and monitoring of the lines of business</li> </ol>

**Economic and regulatory capital management. Bank solvency and profitability**

**Session 1: Management of a bank's solvency**

1. The relationship between risks and capital in a bank. Risk appetite management
2. Regulatory capital requirements in a bank
3. The expected loss from credit risks. Risk Weighted Assets (RWA)
4. Risk Weighted Assets (RWA) for market and operational risks
5. Presentation of exercises and case studies

**Session 2: Regulatory capital within a bank**

6. Resolution of exercises 1, 2 and 3
7. Group discussion exercise 4
8. Basel III objectives. Capital components and debts of a bank, eligible capital and capital buffers
9. Overview of other solvency and liquidity requirements and constraints
10. Presentation of exercises and case studies

**Session 3: Profitability and economic capital in a bank**

11. Resolution of exercises and cases
12. Risk-adjusted profitability as a management guide. Economic capital and profitability; portfolio vision and bank vision
13. Measures of economic profitability: RoRWA, RoRAC and RARoC
14. Importance of value creation (EVA)

**Session 4: Capital Metrics**

15. Group discussion and resolution of exercise 6
16. Group discussion and resolution of exercise 7
17. How does a bank calculate its RWAs for credit risk? Overview
18. How does a bank calculate its capital consumption? Overview

## TEACHING METHODOLOGY

### General methodological course aspects

#### Presential Methodology: Activities

Lessons of an expository and participative nature.

*Cooperative work of students who, in pairs or small groups, are given a task, case or assumption that requires sharing information and resources among members in order to achieve the common goal.* Based on the case method, studied by each student and discussed by each group before the individual interventions of each general session.

The case method stimulates inductive learning. From the analysis of concrete examples, the different tools of analysis are built and general rules of application to all types of companies and sectors are induced. Therefore, prior study of the cases and active participation in the discussions of the general sessions is essential.

Individual and group presentations on topics related to academic content.

The presentations must be evaluated and critiqued by the rest of the classmates or by the professor in order to go deeper into the course.

#### Non-presential Methodology: Activities

Individual study.

Individual reading of texts of different types (cases, books, magazines, articles, press, Internet publications, reports on practical experiences, etc.) related to the courses of study.

**Cooperative work of students who, in pairs or small groups, undertake a project that requires the sharing of information and resources among members in order to achieve a common goal.**

## SUMMARY OF STUDENT WORK HOURS

PRESENTIAL HOURS					
Professor Exposition	Student exhibition. Debates and group dynamics	Exercises and problem solving. Elaboration of applied work	Analysis and documentation	Tutorial sessions	Development of real projects for organizations
3	6	8.5	0	1.5	1
NON-PRESENTIAL HOURS					
Professor Exposition	Student exhibition. Debates and group dynamics	Exercises and problem solving. Elaboration of applied work	Analysis and documentation	Tutorial sessions	Development of real projects for organizations
0	0	25	12.5	1.5	1

**ECTS CREDITS: 2.0 (60.00 hours)**

## EVALUATION AND GRADING CRITERIA

Graded Activities	Evaluation Criteria	% of Total Grade
Assessment of individual or group work carried out by students, some of them presented in class	<ul style="list-style-type: none"> <li>• Work adequacy to the objectives set</li> <li>• On-time delivery</li> <li>• Goal adequacy and focus</li> <li>• Results achieved</li> <li>• Compliance with deadlines</li> <li>• The participation of ALL members of each team in the presentations and elaborations is required</li> </ul>	50

<p>Performance of oral and written examinations, public defenses and multiple-choice tests, concept tests and resolution of practical cases as exams</p>	<ul style="list-style-type: none"> <li>Throughout the program, exams or written tests will be given to test the solidity of the concepts acquired.</li> <li>In order to pass the course, the final exams and tests of each section of the course must be passed. If there are several exams in the same section or block of a course, the weighted average of them must be higher than 5.0 as a necessary condition to pass the course.</li> </ul>	<p>30</p>
<p>Participation and utilization of the classes</p>	<ul style="list-style-type: none"> <li>When we talk about participation, it is clear that both the positive and negative ones are counted and that the quality of participation is as important as the quantity. The students' participation in class, the quality and timeliness of their interventions, the quality in the preparation and presentation of their work, predisposition and commitment, initiative, attendance.</li> </ul>	<p>20</p>

## Grades

Notes on the evaluation criteria:

- All students must present 100% of the exercises and practical cases requested.
- All students must actively participate in the activities to be carried out by groups, within the work outside the classroom. This includes both the individual preparation of the exercises and cases, as well as the active and productive participation in the meetings of the work teams.
- Active participation in face-to-face classes may be valued, increasing the total grade of those students who provide quality participation, both by asking questions that resolve their doubts, and by answering on their own initiative to the public questions posed by the professor, with answers that demonstrate a high level of work both in the class and in the activities that are complementary to the classes.



## BIBLIOGRAPHIES AND RESOURCES

### Bibliographies

**Advanced Credit Risk Analysis and Management.** Ciby Joseph (Wiley, 2013)

**The Handbook of Credit Risk Management: Originating, Assessing, and Managing Credit Exposures** (Wiley Finance, 2012). English edition Sylvain Bouteille (Author)

**Recent developments in consumer credit risk assessment** (N.Crooka, David B.Edelman and Lyn C.Thomas). European Journal of Operational Research, volume 183, Issue 3, 16 December 2007, Pages 1447-1465

**Building and implementing better Credit Risk Scorecards** (Naeem Siddiqi) – Wiley Finance. Second Edition (2017)

**Working Capital Management and Controls. Principles and practice.** Satish B. Mathur (New age international publishers). 2002.

**Basel's Bank for International Management (BIS) Accords, guidelines and proposed regulation** (<https://www.bis.org/>)

**European Banking Authority guidelines, regulations and disclosures** (<https://www.eba.europa.eu/>)

**Santander Group's Pillar III disclosures reports** (<https://www.santander.com/en/shareholders-and-investors/financial-and-economic-information/pillar-iii-disclosures-report>)

In compliance with current regulations regarding the **protection of personal data**, we inform you and remind you that you can consult the aspects related to privacy and data protection that you have accepted in your registration by entering this website and pressing "download".

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