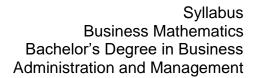# Syllabus
Business Mathematics
Academic year 2024/2025

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1. General organization

1.1. Subject information

Subject imformation		
	Topic	Business Mathematics
	Topic Code	11_2GrADE_FT-EN_101
	Program name	Bachelor's Degree in Business Administration and Management Official Program of Universidad Internacional de la Empresa
	Credits	6 ECTS
	Type	Basic
	Year	First
	Period	First
	Language	English
	Teaching Modality	Face
	Recommended study dedication per 1 ECTS	25 hours

1.2. Faculty

Teacher's name	**Rodríguez Valencia, Leslie Paulina** PhD in Economics and Management

1.3. Subject Presentation

The subject of Business Mathematics provides essential elements for students of Business Administration and Management to understand fundamental finance concepts such as interest rates, incomes, and present values. It also teaches how to apply these concepts in their professional lives, particularly when seeking financing or making investment decisions.

1.4. Competencies and Learning Outcomes

ASSIGNED DEGREE LEARNING OUTCOMES

HD1: Apply the necessary procedures in the planning and accounting standardization of the company.
HD4: Assess financial operations and their impact on the company's strategy.

LEARNING OUTCOMES OF THE SUBJECT
Upon completion of this subject, students are expected to:

RA4: Analyze, assess, and resolve various operations related to business finance.

RA5: Understand the basic aspects of the functional areas of a company and comprehend the relationships between them.

2. Content

Topic 1. Fundamentals of Financial Valuation

Topic 2. Rent Theory

Topic 3. Valuation of short-term financial transactions

Topic 4. Valuation of long-term financial transactions

3. Teaching and Learning Methodologies

The teaching methodologies that will be followed in this subject include:

- **Expository Methods**: Focused on the acquisition of new information, including lectures and seminars.
- **Application Methods**: Emphasize active processes used by students to perform procedural or principled tasks and acquire new knowledge. This includes hands-on demonstrations, problem-solving exercises, case studies, project design, simulations, guided research, and project work.
- **Collaborative Methods**: Emphasize the social dimension of learning and motivate students to share knowledge through collaborative tasks. This includes guided discussions (forums), collaborative work, and mentoring.
- **Globalizing Methods**: Emphasize the integration of knowledge and an interdisciplinary approach to professional reality.

4. Activities

Activity	Number of hours	Face-to-face (%)
Participatory Master Class	28	100%
Practical Classes: Problem Solving	30	100%
Oral and Written Presentations	4	50%
Evaluation	4	100%
Tutorials	10	25%
Freelance Work	74	0%
TOTAL	**150**	

5. Evaluation

5.1. Assessment methods

The Student Assessment Model at University follows the principles of the European Higher Education Area (EHEA).

Assessment System	Weighting
Continuous Assessment Activities *	50%
Problem solving: 10%	
The exercises and problems that the teacher asks the students to perform will be evaluated	
Case Study/Project Design: 30%	
Individual and/or group work will be carried out related to real situations of the economy and/or companies that are requested by the professor.	
Other continuous assessment activities 10%	

Assessment System	Weighting
Exams*	50%

*It is essential to obtain a minimum average of 5 out of 10 in each section (portfolio evaluation and objective tests) to pass the subject. The final grade will be calculated using the weighting described above, except in cases where one of the two sections is not passed. In such cases, the final grade will be the lower of the two grades between continuous assessment activities and objective tests.

For sanctions associated with academic dishonesty, the General Regulations of Evaluation and Qualification of the University and the Regulations of Coexistence and Disciplinary Regulations of Students will be applied. Specifically, the use of content authored by others must be appropriately cited in submitted work. If there is a coincidence of more than 15%—reproducing information from sources without proper citation—the sanction will be a fail (0) for the activity in which it is detected. Repeated behavior will result in a fail (0) for the subject, loss of the call in which the offense occurred, and potential additional disciplinary action by the committee for serious offenses. The use of fraudulent means during assessment tests will also result in a fail (0) and may lead to disciplinary proceedings.

In order to be evaluated in the ordinary call, students may not exceed 25% absences.

In the extraordinary call, the same competencies/learning outcomes will be assessed using the same evaluation system as in the ordinary call. The student must repeat only the evaluation activities that were not passed in the ordinary call. Only students who have obtained a final grade of "Fail" or "Not presented" may apply for the extraordinary call.

5.2. Grading System

The grade of the subject will be established on a numerical scale from 0 to 10, with the following associated qualitative grade:

Level of Proficiency	Official Rating	Qualitative Rating
Very competent	9.0 - 10	Outstanding
Competent	7.0 - 8.9	Notable
Acceptable	5.0 -6.9	Approved
Not yet competent	0.0 -4.9	Suspended

The mention of "Honors" may be awarded at the discretion of the teaching professor to students who have obtained a grade equal to or greater than 9.0. An honours degree may be awarded for every 20 students when the teaching staff considers that the performance of the subject has been exceptional. In the event that the number of students is less than 20, only one Distinction may be awarded.

In each of the activities carried out **, the achievement of the learning outcomes will be measured,** with impartiality and objectivity.

6. Bibliography

Basic

Besley E., Brigham S. (2014). *Fundamentals of Financial Management.* Editorial Cengage Learning.

Brealey, R., Myers, S., Allen F. (2015). *Principles of Corporate Finance.* Mc Graw Hill Publishing.

Complementary: Villalobos J.L (2016).   Financial Mathematics.   Pearson Publishing House

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