

GESTÃO E AVALIAÇÃO DE PROJECTOS

Degree in Public Management

Code: 16230

Main Scientific Area: Finance

Lecturer: Carlos Manuel Fernandes Plácido

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 45h Total Workload: 95h

ECTS: 5,0

Objectives

- Understand the fundamentals of mathematical finance, namely those related to compounding and discount;
- Establish the equation of value using capitals in different moments of time;
- Distinguish and calculate: nominal and effective interest rates;
- proportional and equivalent interest rates;
- Classify and calculate the value of an annuity;
- Understanding general, specific and internal aspects of investment projects;
- Apply evaluation criteria to select investment projects in the context of certainty and risk.

Learning Outcomes

Students must understand the fundamental concepts and principles of financial mathematics, namely those related to compounding, discount, and annuities. Then, students should be able to identify and calculate cash flows that are relevant to the elaboration of investment projects. Students should also know to evaluate and select alternative investment projects. In each chapter, the theoretical exposition of each topic is followed by practical problems and exercises that students must solve in order to reinforce and test their knowledge and skills.

Course Contents

I – Introduction

1. An Overview of Finance;
2. Real Assets vs. Financial Assets;
3. The Role of the Financial Manager;
4. Investment Decision and Financing Decision.

II – Topics in Financial Mathematics

1. Basic concepts and Basic principles;
2. Compounding and Discount
3. Interest Rates: Types and Conversion Rules
4. Annuities

III – Corporate Finance

1. General Aspects of Projects

- 1.1. Development strategy, economic policy, and investment projects;
- 1.2. The key milestones for the development and evaluation of projects: The project cycle. The economic, social and environmental assessment of projects;
- 1.3. The projects analysis in the context of corporate finance.

2. Specific and Internal Aspects of Projects

- 2.1. Market research;
- 2.2. Technical and forecasting of costs studies;
- 2.3. Definition and analysis of variants.

3. The Capital Budgeting: General principles

- 3.1. Meaning;
- 3.2. Importance and difficulties;
- 3.3. Other classifications of investment projects;
- 3.4. Types of decisions;
- 3.5. Identification and estimation of cash flows relevant.

4. Evaluation Criteria and Selection of Projects

- 4.1. Introduction;
 - 4.1.1. Static analysis:
 - 4.1.1.1 In a context of certainty:
 - 4.1.1.1.1 Traditional criteria;
 - 4.1.1.1.2 Criteria based on present value and discounting.

4.1.1.2 In a context of uncertainty (risk):

4.1.1.2.1 Introduction;

4.1.1.2.2 Criteria/methods of approach to risk.

Recommended Bibliography

- Quelhas, Ana Paula; Correia, Fernando, 2017, Manual de Matemática Financeira, 4.^a Edição, Almedina.

- Soares, I.; Moreira, J.; Pinho, C.; Couto, J., 2015, "Decisões de Investimento: Análise Financeira de Projectos", 4.^a Edição, Sílabo.

Learning and Teaching Methods

Chapter 2 will allow students to understand the fundamentals of mathematical finance, namely those related to compounding and discount, as well as to establish the equation of value using capitals in different moments of time. In addition, students will learn to distinguish and calculate: nominal and effective interest rates; proportional and equivalent interest rates. At last, this chapter will also allow students to identify and classify an annuity, as well as to calculate its value.

Chapter 3 is divided into 4 points. Points 1 and 2 allow the understanding of general, internal and specific aspects of investment projects. Thus, this chapter begins with the general aspects of projects, with the primary focus being the main steps for the preparation and evaluation of projects: The project cycle. Then, we discuss the internal and specific aspects of projects, addressing issues such as market research, technical studies, forecasting costs and the definition and analysis of variants. The point 3 focuses mainly on identifying and estimating the relevant cash flows needed for the development of a particular investment project: investment, operational and terminal cash flows.

Point 4 aims to apply evaluation and selection criteria to investment projects, both in the context of certainty and risk. Therefore, we split between the application of criteria in the context of certainty, on the one hand, and in the context of uncertainty (risk), on the other hand. Within the first group, the main highlight is to calculate evaluation criteria taking into account the time value of money. Then, in the second group, we calculate evaluation criteria addressing risk.

Assessment Methods

Public Management Continuous assessment system:

- 1st test (in person) - 40% weight;

- 2nd test (in person) - 60% weight;

- Minimum grade of 7 values in each of the evaluation elements.

- In exam, the exam weights 100%.

Public Management e-Learning Continuous assessment system:

- Presentation and defence of 1 group work, during classes (online)- 30% weight;
- 70% weight;
- Minimum grade of 7 values in each of the evaluation elements.

In exam, the exam weights 100%.