

Course Unit	Investment Analysis	Field of study	Management
Bachelor in	Management	School	School of Technology and Management
Academic Year	2023/2024	Year of study	3
Type	Semestral	Semester	2
Level	1-3	ECTS credits	6.0
Code	9147-707-3201-00-23		
Workload (hours)	162	Contact hours	T - TP 60 PL - TC - S - E - OT - O -

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) António Borges Fernandes, Pedro Jose Marques Silva

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Understand the meaning of certain terms, such as: evaluation; investment; fixed and current asset, to distinguish the key aspects in the study of a project.
2. Distinguish independent projects, dependent and mutually exclusive.
3. Find the optimal capital structure to enable it to finance the investment project.
4. Evaluate the various types of risk of an investment project.
5. Develop a sensitivity analysis, or analysis of scenarios, using statistical methods for forecasting.
6. Evaluate an investment project through the Real Options.
7. Prepare documents estimates, including estimating revenues and costs of exploration and extra exploration.

### Prerequisites

Before the course unit the learner is expected to be able to:

1. Apply knowledge acquired in Linear Algebra.
2. Apply knowledge acquired in Financial Accounting.
3. Apply knowledge acquired in Financial Mathematics.
4. Apply knowledge acquired in Statistics.

### Course contents

Framework and concepts relating to investment projects. Study of the feasibility of a project. Criteria and methods of evaluation. The price systems. Considerations on the selection of projects. Real Options - Models of evaluation.

### Course contents (extended version)

1. Framework and concepts relating to investment projects.
  - The concept of investment in their different perspectives;
  - The concept of capital and its relations with the investment;
  - The concept of project;
  - Investment projects in a business context;
  - Projects in the social context;
  - Classification of projects;
  - Steps and cycle of a project.
2. Study of the feasibility of a project.
  - Brief considerations;
  - Technical studies and forecast of costs;
  - Variants of a project;
  - Some errors and omissions in the development of some projects, the critical point of sales;
  - The critical point of sales.
3. Criteria and methods of evaluation.
  - Different types of cost and benefits of a project;
  - The determination of net working capital;
  - The cash flow of a project;
  - Criteria and measures of profitability of a project;
  - Sensitivity analysis and risk;
  - The investments plan;
  - The business plan;
  - The financing plan;
  - The objectives of a financing plan.
4. The price systems.
  - The system of constant prices;
  - The system of current prices;
  - The system of real prices;
  - The system of shadow prices.
5. Considerations on the selection of projects.
  - In a business context;
  - In the national context.
6. Real Options - Models of evaluation.
  - Binomial Model;
  - Black and Scholes Model.

### Recommended reading

1. Barros, H. (2014). Análise de Projectos de Investimento (5ª ed.). Silabo.
2. Brealey, R. A., Myers S., & Allen, F. (2019). Principles of Corporate Finance (13th ed. ). McGraw-Hill Education.
3. Cebola, A. (2017). Projetos de Investimento de Pequenas e Médias Empresas – Elaboração e Análise (2ª ed.). Edições Silabo.
4. Matias, R. (2018). Cálculo Financeiro Teoria e Prática (6ª ed.). Escolar Editora.
5. Soares, I., Couto, J., Moreira, J. & Pinho, C. (2015). Decisões de Investimento Análise financeira de projetos (4ª ed.). Edições Silabo.

### Teaching and learning methods

Theoretic-practical classes where concrete situations are presented and discussed, case studies, allowing not only the exchange of experience but also the practice of decision-making in groups and to help consolidate the results of learning.

**Assessment methods**

1. Alternative 1 - (Regular, Student Worker) (Final, Supplementary)
  - Final Written Exam - 60% (Minimum mark of 7)
  - Practical Work - 40% (Economic and financial feasibility study for an investment project)
2. Alternative 2 - (Regular, Student Worker) (Special)
  - Final Written Exam - 100%

**Language of instruction**

Portuguese

**Electronic validation**

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05-03-2024	05-03-2024	09-03-2024