

This Document is a Draft

Institution: College of Technology and Management (ESTiG)
Polytechnic Institute of Bragança (IPB)

Degree in Management

SCIENTIFIC AREA	SIGLA	ECTS	
		COMPULSORY	OPTIONAL
Management	GES	48	-
Financial	Fin	18	-
Business Management	GEp	12	-
Operations Management	GOp	6	-
Project	Prj	12	-
Economics	ECO	30	-
Accounting and Taxation	CFc	30	-
Mathematics	MAT	30	-
Human and Social Sciences	CSH	18	-
Law	Dir	12	-
Informatics	INF	12	-
TOTAL		180	(1)

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1. Course Description:

1st Year

Semester 1		Semester 2	
UC	ECTS	UC	ECTS
Informatics I	6	Informatics II	6
Mathematics I	6	Mathematics II	6
Financial Accounting I	6	Financial Accounting II	6
Microeconomics	6	Macroeconomics	6
Introduction to Social Sciences	6	Mathematical Finance	6
Mathematics Laboratory	3	Mathematics Laboratory	3
TOTAL	30	TOTAL	30

2nd Year

Semester 1		Semester 2	
UC	ECTS	UC	ECTS
Management Accounting I	6	Management Accounting II	6
Statistics	6	Operational Research	6
Organizational Social Psychology	6	Operations Management	6
Industrial Economics	6	Financial Management	6
Company Law	6	Complements of Statistics	6
TOTAL	30,0	TOTAL	30,0

3rd Year

Semester 1		Semester 2	
UC	ECTS	UC	ECTS
Taxation	6	Strategic Management	6
Econometrics Methods	6	Human Resources Management	6
European and Portuguese Economics	6	Labour Law	6
Investment Analysis	6	Project/Traineeship	12
Marketing	6		
TOTAL	30	TOTAL	30

2. PROPOSED PLAN OF STUDIES OBJECTIVES

The objective of the degree in management is to prepare professionals in management with the required skills to operate with a high degree of autonomy and responsibility in the organization and management of companies and institutions, namely SME's and governmental institutions. It is also concerned in preparing professionals for team working and for exchanging competencies among the several organizations' departments.

After the completion of the degree, the graduate on management for the ESTiG should be able to:

- Use the adequate language concerning management, economics, accounting, sociology, and law fields;
- Employ mathematics and statistics in managerial and economical analysis;
- Use laws and regulations which compose the organizational framework;
- Have an integrated vision of the company, the current entrepreneurial activity, and of the company environment limitations, through the acquisition of some adequate knowledge which enables a better professional performance and overall citizenship;
- Solve managerial problems, being able to undergo diagnosis and to elaborate adequate solutions;
- Play at the decision-making level, considering the wide complexity of the management dimension and the importance of corporate communication;
- Utilise the adequate methods, techniques, and management tools in a comprehensive way making possible the analysis and resolution of corporate issues at financial, marketing, strategic, productive, accounting, taxing, intelligence, and human resources levels;
- Define organizational policies, taking the psychosocial system as a strategic factor of organizational development, and eyeing an effective global management;
- Use critical knowledge and skills to promote and develop the corporate environment, as interpersonal relationships as well, enabling good motivational practices, and individual and group leadership;
- Identify and employ methods and tools for structural industrial analysis and for the corporate potential competitive diagnosis based on technology and innovation;
- Promote a general attitude towards the valuation of the entrepreneurship ability and the individual initiative powering innovation;
- Adopt a permanent knowledge seeking, being aware of the quick knowledge evolution and the critical need for knowledge recycling and skills development;
- Promote competences at individual time management and at personal work organization levels;
- Understand ethical and professional responsibility.

Following the Bologna declaration spirit, the current plan of studies of the management degree seeks to prepare the undergraduate student to the diverse management activities, fulfilling the need of a multidisciplinary answer to the challenges of an increasingly international and global management.

Main vectors of professional formation:

- executives for the different corporate management fields;
- executives for the governmental administration;
- executives for the management and coordination of local, national and international development projects;
- internal and external consultants;
- chartered accountants;
- high school and university teachers;
- scientific researchers.

3. SPECIFIC COMPETENCES BY SCIENTIFIC AREAS

3.1 – Scientific Area: MANAGEMENT (ECTS: 36)

Expectable Competences:

- Identify the main principles of financial decision, expected profitability valuation methods, and assess the financial assets risk, as identifying the models explaining equilibrium in financial markets as well;
- Employ financial maths on the study of short, medium, and long term financial activities, particularly regarding decision-making on loans to private and corporate agents, bonds, and investment selection;
- Explain *Markovian* models – classical model generalization and application on insurance field;
- Understand and develop life and non-life insurance, pension funds, capitalizations, probability tables, survival functions, random variables and unusual events;
- Identify approaches on investments and enable an integrated view of the process of development, analysis, and control of investments, according the firms view;
- Identify and analyse the financing tools available to companies, as the set of alternative options available for application on the short, medium, and long terms as well;
- Understand and identify the diverse aspects of marketing, namely consumer behaviour, market approach, marketing variables, and evaluation of available options concerning the marketing variables and regarding the corporate strategy. Capacity to elaborate market, economical, and technological studies to be used on the management process;
- To elaborate and implement strategies in the organizations and to ease the integration of knowledge acquired on other course topics, highlighting its usefulness on the strategic management;
- Understand and integrate production management in the global context of the organization, identifying the several decision-making possibilities in the scope of production management and its specific problems, and to make decisions which affect production, involving different knowledge from economical, financial, behavioural, and quantitative methods fields.

3.2 - Scientific Area: MATHEMATICS (ECTS: 30)

- To apply mathematical methods of Linear Algebra and Real Analysis in the resolution of economic and enterprise problems;
- Understand and to apply a set of statistical techniques for the resolution of certain problems resulting from random phenomena and to manage data sets adequately, manually or with the appropriate informatics resource, and to infer on the characteristics of the statistic population from which the data had been extracted, using the statistical techniques in the scope of the support to the decision;
- To understand the basic concepts and techniques of Linear Programming, highlighting the importance of this methodology for the resolution of problems, support to the decision and to understand, for each one of the analyzed techniques, to understand the questions related to the formularization of problems and the algorithmic and computational aspects of the respective resolution.

3.3 – Scientific Area: INFORMATICS / COMPUTER SCIENCE (ECTS: 12)

Expectable Competences:

- To use several numerical systems and number bases;
- To identify functional units of a computer, operating systems and spreadsheet/numerical applications like Excel and Matlab;
- To develop specifications of requisites, analysis, modelling and validation of data;
- To use, conceive, design, implement, install, configure and manage databases;
- To understand the organization and management of information flow processes;
- To program in VBA (*Visual Basic for Applications*);
- To develop *pivot tables* and *macros* on a spreadsheet environment.

3.4 - Scientific Area: LAW (ECTS: 12)

Expectable Competences:

Understanding the main legal aspects conditioning the efficiency of management decisions, in fields such as:

- Labour law: contract drafting and management of legal labour relations, including hiring foreign labour and highly skilled labour;
- Contract law: services and sales contract drafting and management, in internal and international markets;
- Business funding: contract drafting and legal relations with financial institutions;
- Negotiation and legal relations with public entities;
- Competition law: market relations with competitors; European Union competition law;
- Tax law: principles of taxation; Portuguese and European Union taxation systems; tax planning, including special tax regimes.

3.5 - Scientific Area: SOCIAL AND HUMAN SCIENCES (ECTS: 18)

Expectable Competences:

- To distinguish scientific knowledge from other types of knowledge;
- Recognise the need and the difficulties associated with operating a rupture with common-sense within social sciences;
- To identify the process of scientific knowledge production and its limits;
- To discuss the use and purpose of social sciences and their disciplines;
- To recognize and distinguish different research methods and techniques of research within social sciences;
- To develop introductory capabilities of research methods and techniques application within social sciences;
- To mobilize theoretical-practical capabilities in the domain of research methods;
- To conclude over the importance of research methods for scientific development;
- To acquire a general perspective about the main theoretical schools in social sciences and their principle topics of debate;
- To identify the place and value of economics and economical activity for society;
- To recognize different dimensions on the debate of market economies birth and development;
- To explain the ways for western traditional societies change over market evolution;
- To identify and establish challenges that the regular functioning of market economies is exposed to;
- To deduct over the complexity of actual world and its evolution trends, in which future professionals will be integrated;
- To know and recognize different theoretical trends on work organization and organization functioning and structuring;
- To understand and explain how organizations are structured, as well as the environment influence in this process;
- To understand and explain different organizational dynamics, according to environmental and structural configuration interaction;
- To understand and explain processes and factors capable of affecting human motivation in organizations, considering its complexity;
- To understand and explain factors of organizational leadership efficacy;
- To consider the importance of groups for organizational life;
- To understand and explain group functioning in organizations;
- To identify objectives and paths for HRM effectiveness in organizational context;
- To identify, articulate and apply know ledges and skills from the main technical areas of HRM;
- To conclude over the value of individuals for the organizations and thereby promoting its development through a capable HRM, as a key factor for organizational efficacy and success.

3.6 - Scientific Area: ECONOMICS (ECTS: 30)

Expected Qualifications:

- Capacity to understand the importance of the economical dimension on the social and business-related contexts;
- Capacity to realize the vital role of the micro and macroeconomic analysis on the understanding of economical issues both in their technical and political specificities as in their practical perspective;
- Capacity to contextualize the business-related decisions in an economical framework, allowing the acquisition of structural knowledge to be applied on a suitable strategic planning in the economical environment where the firms are settling;
- Critical perception of the national and international economical reality as a way to identify firm-related risks and to develop opportunities generated by the internationalization and globalization of economies;
- Ability to enhance technical skills related to information research, treatment and presentation which are the source to make a decision and to have an active and responsible management intervention;
- Ability to understand analytical and decision tools essential to the validation of firm-related decisions;
- Ability to analyse quantitative and qualitative information, both economical and financial, related with concepts such as the market, product and cost performance, as a way to support the economical and market research;
- Ability to establish numerical relations between the intervention variables of the management process;
- Ability to measure the economical activity based on mathematical and statistical information to elaborate an effective diagnosis about the past and to take the suitable measures of future intervention.

3.7 - Scientific Area: ACCOUNTING AND TAX (ECTS: 30)

Expected Qualifications:

- Learn the principles, concepts, methods and techniques of the Financial Accounting System.
- Carry out the financial statements in line with the required true and fair view, based on national or international accounting standards.
- Understand and analyse the different accounting perspectives in relation to costs and income in order to support the decision process, always considering management accounting an important information system to be used by managers

- Learn and understand how the Portuguese tax system is structured and the important role played by taxation issues in the organization.
- Gain knowledge of corporate income tax code (IRC), personal income tax code (IRS), value added tax (IVA), stamp duty, and municipal property taxes (municipal property tax - IMI and municipal property transfer tax - IMT).
- The Management Graduates should be skilled to understand, analyse and use tax codes in order to perform duties regarding tax planning and deal with tax accounting issues, including the use of e-services to fill-in forms and for other taxation purposes.