Performance Management and Control

Master in Business Engineering
Performance Management and Control

Business Engineering
Introduction

The specialization in Performance Management and Control will primarily interest students wishing to acquire a robust scientific and conceptual knowledge, managerial tools and experience about performance management (via internal control, internal audit, management control or risk management) in all types of organizations (either profit or non-profit making).

This specialization is taught entirely in English but some courses in French are offered among the elective courses.

Objectives

The specialization in Performance Management and Control aims to train future managers wishing to specialize in professions relating to internal control, internal audit, management control, risk management and, more globally, to global performance, or who have to optimize performance on a permanent basis.

These specialists will master the different internal and external accounting techniques and the financial, auditing and legal aspects necessary for a thorough understanding of how human, technical, financial and intangible resources are managed within the organization.

Job prospects

This orientation prepares graduates for multiple professions:

- Regarding financial management: "Business Units" CEO or Financial Director, treasury management, budget management, planning and budgeting, financial analyst;

- Regarding performance management: financial controller, internal controller, internal auditor, internal process auditor, internal financial analyst, general resources manager (public companies), external auditor, public auditor, business analyst.
Strengths

The specialization in Performance Management and Control:

• Offers you a transversal **vision of a company's internal organization** in order to manage its efficiency and performance and to control the many diverse risks it faces, which opens fast access to a managing position;

• Teaches you both **theoretically AND practically how to use several essential tools for modelling the internal functions** (value chain, EFQM approach) and for optimizing procedures (SOX, COSO, COBIT approach etc.), which will enhance your efficiency for your internship, your Master Thesis and will facilitate your initial work experience in business;

• Teaches you to **connect the world of business, accounting, audit and control** with the company's multiple commercial, human or technological realities and with risk management;

• Gives you a **framework** made of adequate concepts and tools which will enable you to dialog efficiently with the company's privileged external partners, i.e. its external auditors and controllers, its legal advisers or external directors.

Program

The professional focus in Supply Chain Management and Business Analytics is a specialization area of the master’s degree program in Business Engineering. Besides the compulsory courses (60 credits) of this graduate program, students take 3 **specialization courses** (each for 5 credits) in the first year, 3 specialization courses (each for 5 credits) in the second year, perform an **internship** (10 credits) and write a **master thesis** (20 credits) during the second and final year of their studies.
YEAR 1
Common Curriculum of the Master’s Degree Program in Business Engineering (45 credits)
+ Performance Management and Control (15 credits)
  - Audit
  - Business Modeling, Control and Planning

1 course among :
  - Consolidation and IFRS
  - International Performance Management

YEAR 2
Common Curriculum of the Master’s Degree Program in Business Engineering (10 credits)
+ Management Performance and Control (45 credits)
  - Internship (15 credits)
  - Master Thesis (20 credits)

3 courses to be chosen among:
  - Organizational Risk and Performance Management
  - Multinational Financial Management
  - Fiscalité approfondie
  - Introduction à l'entrepreneuriat familial
  - Diagnostics approfondis de l'entreprise : aspects juridiques et financiers

The contents of the specialized courses are briefly described in the following pages. Full pedagogical mission statements are available on the ULg site (http://progcours.ulg.ac.be/cocoon/programmes/G2UIENG01_C.html#3269600) and on the Lol@ platform (http://lola.hec.ulg.ac.be/).
As the courses are taught either in English or in French, each course will be described in its proper teaching language.

**First year**

**AUDIT**

Auditing defines as a process of critical analysis of systems, documents and other audit evidences in order to determine the validity of accounting records and management assertions related to financial information or to assess the compliance with defined procedures or contractual engagements. Financial audit is an assurance engagement as defined in the framework of the International Audit and Assurance Standards Board (IAASB).

Having studied the importance of control systems in the organization of business, the objective is to study the successive steps of a financial audit, up to the final phase which is reporting to external users.

The accent is placed on the application of International Standards on Auditing applied to the audit of Belgian companies.

**BUSINESS MODELING, CONTROL AND PLANNING**

This course proposes an overview and an application of the main principles and the most usual techniques used to model how an organization, both from an internal perspective and in an external strategic perspective, is performing, independently from its form, and to build up an adequate Information System, allowing to guarantee its control in a short-, middle- or long-term perspective. It focuses on the one hand on the modelling techniques used to represent an organization from an internal and a strategic perspective and on the other hand on the elaboration and the audit of a performing Information and Control System really adapted to the design of the organization. It is composed by 2 different complementary modules: - The first one is dedicated to the use of the "Value Chain Model" when analyzing its internal organization and of the "Business Model CANVAS" when analyzing its external organization, including the identification of its key processes and activities. A special focus is made on the interactions between the organization and its main clients, suppliers and controllers. -The second one is dedicated to the techniques used to model value creating flows and their control (either organizational, commercial, financial or information flows). A focus is put on the practical use of the "Value Stream Mapping" techniques and on the use of adequate software dedicated to flow modelling.
CONSOLIDATION AND IFRS

1. Introduction
   a. History, standards setting process, IASB bodies
   b. Why IFRS?
      i. Legal and statutory context at world, European and Belgian level
      ii. External prospects for the company
      iii. Internal prospects for the company

2. Start-up costs
3. Intangible assets
4. Tangible fixed assets (including the loan issue costs and investment properties)
5. Leasing, renting
6. Impairment of assets
7. Inventories and contracts in progress
8. Revenue recognition
9. Provision and events after the balance sheet date
10. Employee benefits
11. Stock options
12. Grants
13. Deferred taxes
14. Transactions in foreign currencies
15. Financial instruments
16. Consolidation
17. Business combinations
18. Presentation of financial statements
19. Cash flow statement
20. Segment reporting
21. Earnings per share
22. Discontinued operations
23. Relations with related parties
24. Change in accounting policies
25. Interim reporting
26. IFRS first-time application rules

INTERNATIONAL PERFORMANCE MANAGEMENT

This course emphasizes the specificities of strategy and performance management in international firms, either in their structure (multinational companies MNCs) or in their activities (highly exporting firms and highly culturally-diversified firms).

It combines a theoretical phase and a practical one based on the in-depth study of a real case, supported by an international consulting firm:

• In the theoretical phase, different paradoxes linked to the elaboration of the strategy in an international context, to its content (business level strategy, corporate level strategy, network level strategy) and to its implementation are considered, notably
based on the discussion of fundamental scientific papers linked to each of these paradoxes and published in high-ranked peer-reviewed journals.

- In the practical phase, a real case of a firm largely international both in its activities and in its governance is submitted to a critical analysis by the students, who are asked to diagnose the fundamental performance problems present in the firm, to identify their root causes and to suggest operational improvement recommendations.

**Second year**

**ORGANIZATIONAL RISK AND PERFORMANCE MANAGEMENT**

This course proposes a detailed theoretical overview and an application of the main principles of strategy and the most usual techniques used to optimize global performance and to reduce risk in an organization, independently from its form. It focuses on the organizational strategic monitoring in order to optimize its performance and to reduce its risk level in a long-term perspective and shows which tools are available to ensure that the organization is able to reach continuously its main objectives. It is composed by 3 different complementary modules, proceeded by a global performance audit combining an analysis of the external environment (PESTEL approach) and an analysis of its internal context (audit of the value chain and of key processes): - The first one is dedicated to the identification of the strategy, the key factor success (KFSs) and risks (KRSs) in the organization and to the analysis of their interactions with a Strategy Map and a Risk Map. - The second one is dedicated to the performance monitoring system which may be implemented in the organization, especially by the use of an adequate Balanced ScoreCard. - The third one is at least dedicated to the continuous improvement of operational processes in the organization with the EFQM model.

**MULTINATIONAL FINANCIAL MANAGEMENT**

The course of "Multinational Financial Management" provides students with a comprehensive framework for understanding multinationals' key economic decisions. After a small introduction on the complexities of financial management, the course is organized in three parts.

**Part I: Exchange rates and global markets**

Part one lays the foundations of international finance such as exchange rate dynamics, the underlying mechanisms of international parity relationships and international investment concepts and theories.
Part II: Exchange rates, global markets, and firm value

Part two then examines how firms are impacted by global markets and discusses firm risk exposures and hedging decisions.

Part III: Financial Management of a multinational firm

Part three provides a thorough discussion of the key economic decisions multinationals must make. Part three is structured in different modules. Module 1 evaluates how segmented capital markets create financial opportunities to firms and presents the mechanisms to take advantage of these opportunities. Module 2 presents the incentives for foreign direct investments and cross-border acquisitions as well as the potential risks (exchange, political, ...) involved in these transactions. Module 3 evaluates cross-border investment opportunities using capital budgeting techniques (Adjusted Present Value, Weighted Average Cost of Capital) in an international context.

FISCALITÉ APPROFONDIE

Etablissement de la base imposable et calcul de l'impôt des sociétés.
Les rapports du droit comptable et du droit fiscal - le cas particulier des amortissements.
Le financement par capital à risque versus le financement par emprunt.
De la constitution à la dissolution d'une société.
Double imposition internationale: la problématique, sa spécificité dans le marché unique européen, les réponses du droit interne et du droit conventionnel belge.
Evasion fiscale internationale, mesures anti-abus et éthique.

INTRODUCTION À L'ENTREPRENEURIAT FAMILIAL

L'objectif de ce cours à option est de sensibiliser les étudiants de Master aux spécificités des entreprises familiales et de leur gestion. Il est en effet reconnu dans la littérature et dans la pratique que les entreprises familiales représentent une majorité des entreprises en Belgique et en Europe et que leur gestion est spécifique (interactions entre la sphère familiale et professionnelle/entrepreneuriale, gouvernance, transmission, etc.).
Lors des sessions, ces particularités seront abordées et illustrées.
Les séances théoriques seront suivies par des conférences données par des spécialistes des entreprises familiales ou des entrepreneurs familiaux. Des témoignages vidéos seront proposés et analysés sur base des données théoriques présentées.
En référence à des publications récentes concernant la gestion des entreprises familiales en Belgique et à l'étranger, les questions et notions suivantes seront notamment abordées :

• Qu'est-ce qu'une entreprise familiale (EF)?
• L'entreprise familiale en tant que système: vers un équilibre entre entreprise, famille et individu ?
• Quels sont les « huiles » qui permettent au système de fonctionner (stratégie, communication, charte, surcharge des systèmes, CEO externe, histoire, valeurs, ...) ?
• Communication (Quels sont les tabous au sein de la famille? au sein de l'entreprise familiale? comment communiquer mieux? comment caractériser la communication d'une entreprise familiale ?)
• La gouvernance de l'entreprise familiale
• La transmission (comment préparer et bien gérer la transmission d'une entreprise familiale)? Les aspects managériaux, financiers, juridiques et psychologiques spécifique seront également soulignés et discutés ainsi que les avantages et inconvénients d'un manager externe éventuel.
• Quelle est la place des femmes dans les entreprises familiales?

DIAGNOSTICS APPROFONDIS DE L'ENTREPRISE: ASPECTS JURIDIQUES ET FINANCIERS

Ce cours a pour but de synthétiser, au terme du parcours d'apprentissage de l'étudiant, les techniques et outils de diagnostic stratégique et financiers vus tout au long du cursus de l'étudiant et de montrer comment les professionnels de l'accompagnement d'entreprise utilisent ces techniques et outils dans leur pratique quotidienne.
Les 10 sessions prévues s'articulent autour du cycle de vie d'une entreprise et portent successivement :
• sur sa création (plan d'affaires)
• sur sa phase de lancement (accompagnement des entreprises émergentes)
• sur sa phase de croissance (financement des différentes étapes de la croissance)
• sur sa phase de transmission (transmettre et reprendre une entreprise)
• sur sa phase de déclin éventuel (liquidation et redressement de l'entreprise en difficulté)
**Internship/Master Thesis**

In order to fulfill the requirements of their training at HEC Management School of the University of Liège, all students of a 120-credits master program are to perform an internship in a company and to write a master thesis in the second year of their studies. As concerns the practice-based thesis, the internship and the master thesis are strongly interrelated and defined within the scope of the student’s chosen specialization. As concerns the research thesis, the internship and the master thesis are defined within the scope of the student’s chosen specialization but not necessarily interrelated.

**Students choose one of the following two options:**

- **Internship (10 ECTS)**

  Students do an internship in a company lasting over the first 10 weeks of the academic year (from mid-September to end-November).

  The internship can be done within a private (either commercial, financial or industrial) or public enterprise, a semi public institution or an international organization. The internship is based in Belgium or abroad and is generally not remunerated.

  Students choosing this internship option are bound to do a Research-Paper as an ESP (end-of-study project). Those choosing the internship as integrated within the Project-Paper are to refer to the last option detailed hereunder.

  **For more details: go to the «10-week internship» menu available on LOL@.**

- **Research-thesis (20 ECTS)**

- **Practice-based thesis (30 ECTS)**

  Students do an internship in a company lasting over the first 10 weeks of the academic year (from mid-September to end-November).

  The internship can be done within a private (either commercial, financial or industrial) or public enterprise, a semi public institution or an international organization. The internship is based in Belgium or abroad and is generally not remunerated.

  Students choosing this internship option are bound to do a Research-Paper as an ESP (end-of-study project). Those choosing the internship as integrated within the Project-Paper are to refer to the last option detailed hereunder.

**10-week Internship**

Students do an internship in a company lasting over the first 10 weeks of the academic year (from mid-September to end-November).

The internship can be done within a private (either commercial, financial or industrial) or public enterprise, a semi public institution or an international organization. The internship is based in Belgium or abroad and is generally not remunerated.

Students choosing this internship option are bound to do a Research-Paper as an ESP (end-of-study project). Those choosing the internship as integrated within the Project-Paper are to refer to the last option detailed hereunder.

**For more details: go to the «10-week internship» menu available on LOL@.**

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**Research-thesis**

Students are expected to deliver a master thesis treating an original research problem to be defined within the scope of their chosen specialization. The master thesis presents rigorous scientific analysis and constitutes a contribution to the field of research. It demonstrates the theoretical knowledge that students acquired during their master studies and their ability to apply this knowledge critically in order to build and propose some original, creative and viable solutions to a complex management problem.

For more details: go to the «Research-Thesis» menu available on LOL@.

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**Practice-based thesis**

Students writing a practice-based thesis analyze a complex management problem arising in a private or public organization located in Belgium or abroad. The studied problem must be original and related to their chosen specialization. The practice-based thesis makes use of rigorous scientific analysis in order to demonstrate the theoretical knowledge acquired by students during their training as well as their critical thinking and problem solving skills.

Students begin the practice-based thesis by working one day a week in the company during the first semester and deepen their analysis within the framework of a 10-week internship in the second semester of the second and final year of their studies.

For more details: go to the «Practice-based Thesis» menu available on LOL@.

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