

MIP

**POLITECNICO DI MILANO
GRADUATE SCHOOL OF BUSINESS**

IMIM
INTERNATIONAL
MASTER IN
INDUSTRIAL
MANAGEMENT

Courses Description

A JOINT PROGRAM WITH



Technical
University
of Munich



FIRST SEMESTER

(UNIVERSIDAD POLITÉCNICA DE MADRID - SPAIN)



Financial and Managerial Accounting

The course is designed to provide students with a clear and well-structured introduction to financial and management accounting. There is also a strong emphasis on the 'why' rather than simply the 'what' and 'how' of accounting facts.



Capital Markets and Corporate Finance

The objective of the finance core course is to develop a framework for corporate financial decision-making and provide a solid grounding in the principles and practice of financial management.

The course breaks down into three main sections:

1. Project Appraisal;
2. Capital Markets;
3. Capital Structure.





Organization and Corporate Strategy in a Global Context

Organization & Corporate Strategy in a Global Context introduces students to important organization and management concepts and applications, and their relevance to individual and organizational goal attainment. It touches upon a large number of topics around the main functions of managers: planning, organizing, leading and controlling. Hence, students should gain a broad perspective on organizations and the art and science of getting work done through people.



Industrial and International Marketing

This course is designed as an introduction to the world of industrial marketing and international marketing. The contents will cover traditional knowledge; main actual questions and topics; new ideas. In addition, it pretends to develop abilities such as research, analysis, diagnosis, creativity, synthesis and communication.



SME Management (Small Business Management)

The objective of the course is to familiarize students with some of the unique issues faced by owners of entrepreneurial and family businesses and of working in small and medium enterprises. Example of topics covered include selection of business form, financing and cash flow planning. Special problems of family businesses include integrating family members into the business, motivating and retaining on-family employees, and business succession strategies. These issues will be viewed from a multi-disciplinary perspective that includes legal and behavioral considerations.



Applied Managerial Skills

This course is to help students develop essential management skills. With an emphasis on self-assessments. This general management skills module gets students involved in the learning experience, helping them connect the theories to their own lives. Further, this course focuses on developing the ten essential skills needed for success and gives students tangible goals to work towards. This will be an interactive class and students will learn together through discussions, case studies, activities, and some research on your own. Students are encouraged to be proactive and creative in these activities.



ICT Management

The objective of this course is to show the importance of Information and Communication Technologies (ICT) for creating successful, competitive firms, managing global organizations, adding value and providing useful products and services to customers. The focus of the course will be on the managerial aspects of ICT, considered as socio-technical systems.



Industrial Management in Local Context and Language

This is a set of seminars and other activities to help the students to better understand the Spanish context and to better integrate in the local society and culture. They are also taught basic Spanish language and commonly used phrases.



SECOND SEMESTER (MIP POLITECNICO DI MILANO)



Operations Management and Improvement in Manufacturing and Services

The course aims at developing a strategic vision of operations and supply chain, and understand how operations and supply chain can create a competitive advantage. Lean management is at the base of the course so as to get a clear understanding of this emerging approach to manufacturing and services.



Integrated Operations and Supply Chain Planning

The purpose of the course is to provide the students with the basic knowledge about manufacturing systems and about the production management principles. The course constitutes the background for the other courses that students will take in the semester. The main topics are: manufacturing systems configuration, production planning and control process, medium and short-term production planning, inventory management, operations scheduling.



Quality and Maintenance Management

The course aims at providing the participants with an overview of management principles and a set of tools allowing to manage and improve the quality of operations of a company, together with the fundamental criteria for an efficient organization of the applications' maintenance.



Service Management

The course addresses specific service management aspects which are not part of the manufacturing sector. It will give the participants the methodologies and tools to manage and improve the operations of services. In particular, three types of services will be addressed: services of service companies, services of manufacturing companies (e.g. After Sale), services to manufacturing companies.



Global Supply Chain Management

The course aims to prepare students in purchasing and supply management. At the end of the course, students are expected to be able to:

- > Design logistics and distribution networks;
- > Know and understand warehousing;
- > Know and understand transportation;
- > Assess sustainability of distribution network;
- > Know and understand purchasing and supply management process and tools;
- > Manage a supplier selection process;
- > Manage the relations with suppliers;
- > Master the negotiation techniques;
- > Develop a purchasing strategy.



Sustainability and Ethics in Business

The course aims at providing the participants with a consistent and integrated framework of sustainability governance and management, plus some basic elements of business ethics (these two topics being strictly correlated). Particular emphasis has been given to those issues that are more linked to the objectives and the contents of the master (i.e., sustainable manufacturing and related issues).



Industrial Management in Local Context and Language

This course aims at supporting the students to integrate in the local society and culture while developing a wide range of soft skills like the adaptability to multicultural contexts, emotional intelligence, creativity, diversity management, etc. This course is structured on a set of personal development seminars, plus other activities that aim to help the students better understand the Italian context, and to develop transversal skills that would complete their professional profile as future industrial managers.

THIRD SEMESTER, 1ST OPTION ENTREPRENEURSHIP AND TECHNOLOGY MANAGEMENT (TUM-GERMANY)

Students are required to choose five out the eight courses listed below.



Advanced Seminar Innovation & Entrepreneurship

How to analyze dynamic markets characterized by innovative technologies and/or business models? How to quantify/forecast business potential for entrepreneurial firms within such markets? (Entrepreneurial firms are those that explicitly aim for extraordinary growth - irrespective of their maturity or age.) The EF Lab provides students with tools and techniques that enable them to execute such analysis. This skill is crucial for entrepreneurs who evaluate the potential of business models and strategic options (and need input for their financial forecasts) as well as for analysts working in the equity investment industry (either covering growth company stocks as equity analyst or working for venture capital or private equity firms). Throughout the seminar, students will develop skills to analyze business trends and technologies as well as their market potential. Each student will get an idea of the structure, story-telling process and analytical skills needed to successfully evaluate the following core elements which will be addressed during the course:- Trend scouting,- Technology screening & scouting,- Business analysis of entrepreneurial firms,- Entrepreneurial value chain.

Each semester participants of the EF-Lab will analyze a different, pre-specified market or technology, for example 3D-printing, Mobile Health Solutions or FinTech.



Case Study Seminar: Strategic Management of Technology and Innovation

The seminar will examine what types of innovations can serve as the basis for a successful business. Innovations often originate in science or corporate R&D and are of technological nature, providing new solutions. Yet, many successful businesses have risen to prominence based on non-technological innovation such as business model innovation, innovative distribution models, and innovation within the value-chain. Based on case studies and real-life examples we will explore businesses ideas and novel concepts behind such innovative businesses. We will then cover what it takes to spread innovative products into the market, and take an innovative idea into a revenue generating business. In this we will distinguish between innovation in established industries and innovative products that shape new industries.

Frameworks around customer adoption, customer acquisition strategy (e.g. crossing the chasm with early adopters), and methods such as customer lifetime value calculation will provide theoretical underpinning for the case discussions.

Key concepts covered in this course include, but are not limited to:

- > Sources and types of innovation
- > Disruptive innovation
- > Innovation value chain
- > Innovation and business opportunity evaluation
- > Launch plan for a product/service



Advanced Seminar Innovation & Entrepreneurship I: Strategies, Business Models, and Change

The strategic entrepreneurship seminar aims at familiarizing students with the academic discourse on topics of strategic entrepreneurship and preparing them to write a master thesis. Accordingly, students are not only required to compose a seminar paper, but also (1) to present it to an audience and (2) to discuss the paper of another participant in the spirit of constructive criticism that should drive all academic work.

The seminar itself is focused on the intersection between entrepreneurship and strategy - on the one hand, students look at how certain aspects of strategizing may help start-ups succeed. On the other hand, we will look at how large firms may use entrepreneurship to continuously renew themselves and achieve growth.

Terms may vary over time; suggestions will be given at the beginning of the term; student suggestions for topics are welcome, but acceptance cannot be guaranteed. Amongst others, the following topics may be part of the seminar: when and how do start-ups engage in strategic planning? Under which conditions is strategic planning a promising activity for start-ups? How do start-ups manage the transition to becoming an established firm? Which aspects of entrepreneurship are particularly relevant for large firms? How do entrepreneurial processes (such as opportunity recognition and exploitation) work in large firms? Which practices that large firms employ may help or hinder entrepreneurial behavior? How do an entrepreneurial mindset and entrepreneurial action affect the strategic management and organization of large firms? Which obstacles and challenges need to be addressed by management?



Advanced Topics in Innovation & Entrepreneurship: Introduction to Sociology - The Sociology of Harry Potter

This course is designed as an extensive coverage of topics that would be included in an entry level sociology course. What makes this course unique is that it will provide an extended application of foundational sociological concepts through the use of the highly popular Harry Potter series. This analysis will begin at a level that will not require any previous experience or knowledge of sociology. Through this examination, however, these key concepts will be thoroughly examined and explicated.

The first segment of this course will center on using the world of Harry Potter as a lens to examine sociological theories and issues, such as race, class, gender, and religion. The second segment will investigate whether and how the Harry Potter series, as a social phenomenon, has impacted these issues in the real world. Using the Harry Potter series is advantageous for several reasons. First, the overwhelming popularity of the books and movies will make the class extremely appealing to a wide range of students. Second, and more importantly, the content of the series allows for a novel approach to fundamental sociological concepts. Finally, and as it pertains to this proposal, the series allows for a unique connection of these concepts from a British/U.S. perspective and a German context. The world of Harry Potter is in many ways "a-national" in that it exists outside of national borders. Yet, the series is clearly written from a British/U.S. social-cultural understanding. Thus, this class will allow for an exploration of how sociological concepts help bridge across such social-cultural specificity and will illustrate the ways in which these concepts may be limited by particular contexts.

In addition to the substantive topics the course will cover, one of the overarching goals of the class is to help guide students through a process of engaged, self-motivated learning. In this respect, Prof. Longest plans to bring his particular pedagogical approach to the teaching activities at TUM.

Too often research has shown that even when students are interested or invested in the content of a course, they rarely take that interest and engage it in any academic pursuit that lays beyond the requirements of the specific class. Although there have been numerous attempts to explain this apparent lack of intellectual curiosity, a clear barrier could be the fact that self-guided learning is, typically, not a born-in skill.

Rather, the ability to learn on one's own in an "academic" way (i.e., beyond a Google search) is something that benefits from instruction and, even more importantly, practice. Therefore, this class is designed to explicitly develop this skill set.

A good deal of the class design and requirements are going to be determined and driven by the students. Research has consistently shown that when students are an integral part of the knowledge production process they are more likely to engage with, understand and retain the information. The goal of this class is for students to love what they are learning, and the achievement of that goal is very much in their hands. The experience of this class is going to be in the design, building and follow through of their intellectual development.



Advanced Seminar Entrepreneurship: Emergence and persistence of ventures and family businesses

At the course students will learn how to:

- > Read and understand the scientific literature
- > Write a scientific paper
- > Present the term paper
- > Lead a scientific discussion
- > Understand the process of scientific publications

The course is based on corporate entrepreneurship from a strategic perspective.

The following topics will be included:

- > The course will show dimensions, models and symptoms of corporate entrepreneurship;
- > The attention is on the strategic and entrepreneurship in relation to corporate entrepreneurship.

The seminar deals with topics of:

1. Dimensions of corporate entrepreneurship
2. Strategic entrepreneurship
3. Corporate venturing (intern)
4. Corporate venturing (extern)
5. Success factors of corporate entrepreneurship
6. Corporate entrepreneurship and the growth of firms
7. Entrepreneurial orientation as a firm's strategy
8. Managing innovation
9. Corporate entrepreneurship and open innovation
10. Opportunity recognition in firm environments etc.

> **Advanced Seminar Innovation & Entrepreneurship: Concepts in International Entrepreneurship**

The seminar Concepts in International Entrepreneurship prepares students for their master thesis. The students will write a seminar paper on a specific topic, present this topic to the class, discuss a fellow student's paper, and be involved in scientific discussions on a variety of topics in class. The seminar follows the entrepreneurial process and comprehends the key concepts in internationalization related to it. Thus, it enables the participants to understand the antecedents, boundary conditions and consequences of the entrepreneurial internationalization, and allows cross-country comparisons of the various entrepreneurial phenomena.

> **Advanced Seminar Finance & Accounting I: Current Issues in Private Equity**

After successful participation at the seminar students will have gained in-depth knowledge on the tackled focus of the seminar. Students also will be able to write a scientific research paper, procure relevant literature and structure a topic. Additionally, students will be able to present their research findings in front of seminar participants, answer their questions and moderate a following discussion.

All Finance & Accounting chairs offer various seminars each semester. There are theory seminars on current issues in finance and accounting as well as seminars which are held in cooperation with companies and tackle practice-related topics. The focus of the seminars change every semester according to the offering chair.

The module consists of one introductory lecture, a scientific writing lecture, individual feedback sessions as well as the preparation and presentation of a seminar paper.

> **Marketing Entrepreneurship Lab**

In the Marketing Entrepreneurship Lab (M-Lab), students get the opportunity to co-create the first steps of a spin-off. In this context, start-ups of the TU Munich are supported on their way to incorporate their business.

The task in the M-Lab is to support a start-up of the TUM in the areas of strategic marketing, market research and product launch, with the following main topics:

- > How to focus on the relevant application scenarios out of plenty and prepare for the market entry?
- > How do business strategy and business model interact?
- > How do I create a marketing plan and how do I prepare the market entry?



THIRD SEMESTER, 2ND OPTION STRATEGIC MANAGEMENT (HWU-UK)

- > **Business Models**
The purpose of the course is to establish links between contemporary strategic thinking and the operational aspects of the enterprise through business models. Critically examine how modern strategic thinking is reflected within evolving business models; to explore the major themes and issues in the development of business models. To examine the link between business models, the value proposition and competitive differential.
- > **Strategic Change**
This module provides students with a knowledge and understanding of organisational change from a strategic HR perspective, and of models of change and their application.
- > **Strategic Project Management**
The course investigates the linkages between business strategy, implementation and project management. In particular it seeks to establish how organisations align projects with the organisational strategy. Emerging practices of alignment are discussed, including portfolio management and programme management.
- > **Leadership**
The objective of the course is to introduce theories of leadership and an appreciation of the role of leadership in business. To understand the linkages between effective and appropriate leadership and organisational strategy and develop a depth of understanding and analysis of different leadership theories in various contexts. To develop an advanced appreciation and understanding of different styles of leadership. To develop skills associated with leadership and to provide the opportunity to consider appropriate leadership practice in various real-life or simulated contexts.

THIRD SEMESTER, 3RD OPTION DOING BUSINESS IN CHINA (BJTU-CHINA)

- > **Organizational Behaviour**

“Organizational Behavior” describes the incomplete rational behavior of people in for-profit organizations. Related disciplines include psychology, sociology, social psychology, anthropology and politics. This course encompasses three threads, i.e. incomplete rational person, psychological trend to pursue consistency and uncertainty. It can be summarized in four frameworks: structural frame, people-based framework, political framework and cultural framework. Processes inside an organization are analyzed at three levels, i.e., individual, group and organizational levels.
- > **Managerial Economics**

Managerial economics is a discipline of communicating microeconomic theories and management practice. It focuses on employing basic principles of microeconomics to analyze and compare alternative action plans and provide a systematic and logical analytical method for managerial decision making. Meanwhile, it guides business decision makers through efficient allocation of scarce resources and development and implementation of business decisions that enable the achievement of corporate goals.
- > **Enterprise Logistics Management**

Enterprise logistics management is a speciality elective course for IMIM students which teaches them the formulation of general conception of enterprise logistics operations. The course aims at helping students with the systematic and integrated concept of enterprise logistics management; help them get accurate comprehension about the basic theories, principles and general methods of enterprise logistics management and synthetically apply them to the analysis of the enterprise logistics problems, then have the capability of solving general logistics management problems in industrial and merchandising enterprises.
- > **Industrial Management in Local Context and Language**

This course aims at supporting the students to integrate in the local society and culture while developing a wide range of soft skills like the adaptability to multicultural contexts, emotional intelligence, creativity, diversity management, etc. This course is structured on a set of personal development seminars, plus other activities that aim to help the students to better understand the Chinese context, and to develop transversal skills that would complete their professional profile as future industrial managers.

FOURTH SEMESTER MASTER THESIS

Teaching topics may be subject to changes. With regard to third semester other alternatives and University destinations may be added.



Executive Education
Ranking 2016



European Business Schools
Ranking 2015



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