



The Master in Technology and Engineering Management curriculum includes:

- 4 Core Courses (30 ECTS)
- 4 Elective Courses (30 ECTS)
- 1 Master Thesis (30 ECTS)

Core Courses

205104 - Finance and Accounting - 7.5 ECTS (Semester 1)

The objective of this course is to introduce the student to the world of corporate finance. This will result in the exposure to many types of financial concepts as well as basic procedures for the application and interpretation of financial statement analysis.

205105 - Tools for Decision Making - 7.5 ECTS (Semester 1)

The course Tools for Decision Analysis introduces students to the concepts, principles and techniques of data analysis, linear programming, integer-mixed linear programming, and Markov chains for making smart and successful decisions in different contexts.

205106 - Production and Logistics - 7.5 ECTS (Semester 2)

The course Production and Logistics introduces students to the concepts, principles and techniques associated with the production system supply chain management. This course examines the value stream from suppliers to customers, including the purchasing process, the production process, the planning process, the distribution process, as well as the process of monitoring and improving the whole system.

205107 - International Business- 7.5 ECTS (Semester 2)

Core ideas about the current legislation on patents, rights to protection, and internalizing are some examples of the content of this course. Students will also learn about the effects of changes in macroeconomy on technology companies.



Elective Courses

205108 - Asset and Facility Management - 7.5 ECTS (Semester 1)

The course Asset and Facility Management introduces students to the concepts, principles and techniques of Real state and Industrial Planning, Facility Planning and Management for industries, Energy management for industrial plants and other asset management and technologies for improving the management of Asset and Facilities in industrial buildings.

205109 - Information Technologies & Data Analysis - 7.5 ECTS (Semester 1)

The Information Technologies & Data Analysis course introduces the students into the concepts, principles and technologies associated with the Information and Communication Technologies to manage corporative data and the Data Analytics techniques to analyze sets of Big Data. The course is planned to follow the natural flow of data beginning with the data source, data modelling, information system design and management, data retrieval, big data analysis and decision support techniques with predictive models.

205110 - Game Theory - 7.5 ECTS (Semester 1)

The course introduces the aim and methodology of Game Theory, a branch of Operations Research devoted to the analysis of conflicts of interest. The convenience of applying game theory to solve decision-making problems in engineering management is illustrated by means of a variety of examples of this and other fields of knowledge.

205111 - Strategy and Marketing - 7.5 ECTS (Semester 2)

The objective of this course is to introduce how to assess market opportunities as well as develop and implement corporate and marketing strategies through the learning of theory and practice of strategy and marketing. Materials from a variety of sources and settings will be provided to students.

205112 - Advanced Project Management - 7.5 ECTS (Semester 2)

The course Advanced Project Management aims to introduce students to planning, organizing, securing and managing resources efficiently for the successful completion of specific project goals and objectives. Students will learn to design, manage and monitor international technology and engineering projects.

205113 - Team Management - 7.5 ECTS (Semester 1) Non available temporarily

The course Team Management introduces students to the concepts, principles and techniques of team management. Students will learn how to manage their own resources, such as their time, as well as to develop their interpersonal and group skills (power, motivation, conflict management, leadership, delegation and teamwork).



205114 - Environment, Health and Safety, and Quality management - 7.5 ECTS (Semester 2)

Recently, the integration of management systems has become an increasingly important mechanism adopted by organizations, as it represents an alternative to operating with multiple parallel management systems. Therefore, the main objective of this course is to introduce students to the three more widespread management systems adopted by firms, namely occupational health and safety, quality and environment, as well as to the methodologies for their integration.

205115 - Combinatorial Optimization in Logistics - 7.5 ECTS (Semester 2)

This course can be seen as an extension of the mandatory course 'Tools for Decision Making'. The goal of the course is to get some insight on the main techniques used for solving combinatorial optimization problems that arise in logistics.

205116 - Simulation of Industrial and Logistic Processes - 7.5 ECTS (Semester 2)

The Simulation of industrial and logistic systems course introduces students to the area of discrete event simulation of stochastic processes as an aid in the decision making process in production and logistic environments. The modeling of manufacturing or logistic processes in a simulator allows the analysis, the study, the improvement, and the evaluation of different solutions without interfering with the real system.

205102 - Master Thesis - 30 ECTS

The Master Thesis is an individual and comprehensive engineering management project where students synthesize the skills acquired in the Master. All students defend their Master Thesis in front of 3 professors during 1 hour: 20 minutes where students present the contents of their Master Thesis and 40 minutes for discussing these contents between student and professors.