ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ
ΣΧΟΛΗ ΝΑΥΤΙΛΙΑΣ ΚΑΙ ΒΙΟΜΗΧΑΝΙΑΣ

ΤΜΗΜΑ ΒΙΟΜΗΧΑΝΙΚΗΣ ΔΙΟΙΚΗΣΗΣ
ΚΑΙ ΤΕΧΝΟΛΟΓΙΑΣ

UNIVERSITY OF PIRAEUS
SCHOOL OF MARITIME AND INDUSTRIAL STUDIES

DEPARTMENT OF INDUSTRIAL MANAGEMENT AND
TECHNOLOGY

MSc in LOGISTICS

POSTGRADUATE STUDY PROGRAM

PIRAEUS 2024

Postgraduate Study Program

SEMESTER A	
CORE COURSES	**ECTS**
Analytical Methods	6
Supply Chain Management	6
Logistics Information Systems	6
ELECTIVE COURSES (Select 2 out of 5)	
Computational Tools for Problem Analysis and Solving	6
Operations Cost Analysis	6
Inventory Management	6
ERP Systems for Supply Chain Management	6
Project Management	6
Personal Skills Development	-
Total ECTS	**30**
SEMESTER B'	
CORE COURSES	**ECTS**
Procurement and Supply	6
Warehouse Management and Material Handling	6
Transportation and Distribution Systems	6
ELECTIVE COURSES (Select 2 out of 6)	
Financial Management	6
Zero Waste Management and Circular Economy	6
Strategic Management and Entrepreneurship	6
Advanced ERP Systems for Supply Chain Management - SAP Applications	6
Environmental Standards and Certifications	6
Packaging in Supply Chain	6
Personal Skills Development	-
Total ECTS	**30**
SEMESTER C	
CORE	**ECTS**
MSc Thesis	12
ELECTIVE COURSES (Select 3 out of 8)	
Managing Knowledge and Organizational Change	6
Human Resource Management	6
Industry 4.0 Systems	6
Equipment and Facility Maintenance	6
Humanitarian Logistics	6
Urban-City Last Mile Logistics	6
Digital Transformation and Operations Management	6
Sustainable and Globalized Supply Chains	6
Internship Program	6
Methodology Research	-
Total ECTS	**30**

SEMESTER A'

ANALYTICAL METHODS

At the core of the course lies decision making in Logistics through quantitative models and techniques. The issues discussed in the course arise at strategic, tactical and operational level. A variety of models as well as solution techniques are presented. Special emphasis is given in Mathematical Programming Models – Linear and Integer, Network, and Queuing Theory models.

Upon successful completion of the course, the students will be able to:

- They have knowledge and will understand the problems related to the decision-making process
- Formulate a problem from the fields of Management and Decision making science and Logistics using mathematical models, identify its variables, the optimization objective and the restrictions to which the variables are subject to.
- Be able to make use of the appropriate models to use in each case, depending on the problem, data and existing constraints.
- To use basic available computer tools in solving optimization problems with Operations Research tools.
- Interpret the results/solution of mathematical models, make decisions and analyze alternative scenarios – using sensitivity analysis.

SUPPLY CHAIN MANAGEMENT

The aim of the course is to obtain skills and up-to-date knowledge on basic areas pertaining to supply chain management.

Upon successful completion of the course, the students will be able to:

- be familiar with basic concepts of logistics
- understand the significant impact of supply chain management on financial performance and viability of an enterprise.

LOGISTICS INFORMATION SYSTEMS

The application of Information Systems (IS) is wide and varied. This course focuses on their application as a mechanism to support business management and decision-making, as well as the use of IS in the majority of business areas. The use of modern IT tools and techniques and the implementation of the latest trends in the field of the Supply Chain lead to significant improvements in the operation of a business and contribute to the drastic reduction of Logistics costs, which constitute a significant percentage of the value of a final product.

After attending the course, students will acquire knowledge in the management of modern e-business and Logistics Information Systems.

COMPUTATIONAL TOOLS FOR PROBLEM SOLVING AND ANALYSIS

The aim of the course is to study various computational tools and techniques which can be employed for modeling and analyzing unstructured business problems and decision-making issues. Spreadsheet software applications are used as the main analysis tool, due to their widespread use in the business environment as well due to the significant, often unexploited, capabilities for data analysis and processing that they provide. The tools presented cover a wide range of methods for quantitative analysis and decision analysis and are associated with the areas of Management Science, Applied Statistics and Decision Analysis.

Upon successful completion of the course, the students will be able to:

- develop models for exploratory analysis and study of practical business problems
- to apply sound scientific techniques in practical problem-solving and analysis, and
- efficiently use the corresponding spreadsheet software tools for performing the above in a time-efficient manner.

OPERATIONS COST ANALYSIS

The aim of the course is the acquisition of Knowledge and skills in the application of the modern methodology of Activity Based Costing (ABC) to the processes of a company. ABC was originally developed to solve the problem that many managers could perceive through their experience but could not demonstrate through traditional costing systems. Today,

ABC systems are recognized as the most modern (state-of-the-art) cost control technique, finding application in a wide range of activities and businesses worldwide.
Upon successful completion of the course, the students will be able to:

- be familiar with the basic concepts of Activity Based Costing methodology.
- to know and operate a powerful and integrated decision support system which will be based on ABC method as it is applied with its principles.
- understand that the smooth operation, development and above all the profitability of the business depends on the acquisition and retention of satisfied customers and on the correct measurement and correct allocation of costs.

INVENTORY MANAGEMENT
The aim of the course is to study inventory control models, both deterministic and stochastic, as well as the analysis of methods on how to minimize the inventory cost in a firm.
Upon successful completion of the course, the students will be able to manage efficiently and effectively their firm's stock by simultaneously reducing the inventory level and increasing the level of service to their customers.

ERP SYSTEMS FOR SUPPLY CHAIN MANAGEMENT
The course "ERP Systems in the Supply Chain – Applications with SAP" benefits of the main advantage of ERP systems, that is, business process integration. With this approach one achieves addressing issues pertinent to Logistics, as well as, teaching how business processes interact and exchange information to make decisions. The Business Processes which are presented and used during the Course are related to the corresponding SAP Module:

Business Process	Module
Sales	(SD) – Sales and Distribution
Production	(PP) – Production Planning and Control
Procurement	(MM) – Materials Management
Storage	(WM) – Warehouse Management
Financial Management	(FI/CO) – Financial Management / Controlling

In a nutshell, the aim of the course ""ERP Systems in the Supply Chain – Applications with SAP" is to provide to the students both the theoretical concepts and the practical skills in integrated ERP systems with emphasis in Logistics. More specifically, the course aims to demonstrate all the mechanisms which an ERP Systems offers, to support the business decision-making process along with the Logistics processes. Furthermore, students will come across with a variety of real - daily basis Project Management Process problems and difficulties, which should overcome using ERP's functionalities.

PROJECT MANAGEMENT
The course deals with the study and practical training of project management through the integrated study of a project from inception to completion. Initially, the knowledge areas, methodologies and approaches for project evaluation and selection among candidate projects are presented, and the necessity to align the project management objectives with the strategy of an organization are highlighted. Then, a step-by-step presentation of an integrated project plan, is presented, which contains the project charter, the analytic documentation of the project scope, the entire time management aspects, the budget development, the staffing plan and the risk response planning. In each of the course sections, specific techniques and global standards are presented, which corroborate the proper project plan development and provide reliable quantitative indices to support monitoring of the physical and financial progress of a project. In parallel to theoretical sections, a typical project is progressively modeled and examined using MS Project 2013 or 2016. The acquaintance with this software enables students to profit of their knowledge in the job market. The entirety of the course is strongly oriented towards practical application and is thus enriched with pragmatic case studies and representative examples from the Greek and international projects reality.
The course objectives are:

- Learning the basic concepts, methodologies and techniques of modern project management
- Understanding the necessity of aligning project management with the strategy, values and targets of an organization as well as the feeling of the multidimensional impact that projects have on the context they are executed in
- Developing the perception and critical thought for projects that have been or about to be executed and acquiring coherent evaluation criteria for these projects

- Getting acquainted with the most widely spread and globally accepted techniques and standards that facilitate project management and formulate a common international language of communication in these subjects
- Presenting the methodological framework for selecting, developing, executing and monitoring projects and learning one of the most popular project management software
- Encouraging further reading and investigation of this interdisciplinary subject and developing the motivation for professional involvement

PERSONAL SKILLS DEVELOPMENT

The aim of the course is to understand the importance of developing soft skills as a critical success factor in the modern business environment. In this context, this seminar series seeks to help students identify and develop their communication and presentation skills, their teamwork competencies, as well as their creativity, negotiation, and decision making skills through the use of experiential exercises, business games and simulations, self-assessment tests, and role-playing.

Upon successful completion of the course, the students will be able to develop a set of skills and increase their understanding of key concepts referring to:

- The process of effective communication and presentation both within and across the organization.
- The design and management of teams.
- Idea development techniques.
- Decision making practices.
- Negotiation, conflict management, and providing feedback practices across different levels of hierarchy

SEMESTER B'

PROCUREMENT AND SUPPLY

The aim of the course is to obtain skills and up-to-date knowledge on subject areas pertaining to procurement and supply.

Upon successful completion of the course, the students will be able to:

- be familiar with basic concepts of procurement and supply
- apply tools and methodologies to manage problems relating to the acquisition of materials and services from enterprises and organizations.

WAREHOUSE MANAGEMENT AND MATERIAL HANDLING

The aim of the course is the acquisition of Knowledge and skills in basic thematic units of Warehouse Management and the physical Distribution Networks of the modern enterprises.

Upon successful completion of the course, the students will be able to:

- familiarize with the basic concepts of storage of goods in warehouses and modern distribution centers, as well as the Distribution of goods to end customers.
- understand the important effect of Warehousing on customer service and the financial impact and performance on the distribution channel of a business.

understand the catalytic effect of the Distribution Network on customer service and financial performance and sustainability of a business.

TRANSPORTATION AND DISTRIBUTION SYSTEMS

The aim of the course is to discuss and analyse the means of integration and operation of transportation and distribution systems within the context of logistics systems. There is a specific emphasis on the organization and management of "physical" transport flows for the planning of the production and goods movement processes, as well as the means to adapt to market fluctuations.

Upon successful completion of the course, the students will be able to:

- analyze and apply the concepts of demand, supply and cost of freight transport services,
- compare the alternative modes of transport that ensure the movement of goods in the supply chain of companies
- evaluate the alternative ways of organizing the distribution systems of the companies,
- solve problems and make decisions about the company's freight and distribution strategy
- assess the impact of transport policies and decisions on the performance of businesses and their supply chain

FINANCIAL MANAGEMENT

Financial decisions are of fundamental importance for modern economies and have significant explicit or implicit influence on both corporations and private investors. Finance has now become one of the most successful and active fields of research and application in management and economics. The theoretical basis of finance is strongly diverse integrating fields such as microeconomics, macroeconomics, accounting, mathematics, statistics, operational research, information technology, decision sciences, etc. This course aims at familiarizing students to the theory and practice of financial management. At the beginning, the course introduces students to the Accounting statements, the Financial Markets and their products. Then it deals with the three key decisions in corporate finance concerning: Investments, Financing and Dividends. The presentation is focused on developed markets, such as those of US and Europe, but reference is also made to emerging markets and the Greek markets.
On completing the course the participants will:

- Understand the key issues affecting corporate finance decisions.
- Retrieve Financial data and information from Accounting Statements
- Appreciate the risk-return trade-off
- Evaluate investments using different methodologies
- Assess the value of listed and unlisted companies
- Understand the advantages and disadvantages of using different forms of equity and debt

ZERO WASTE MANAGEMENT AND CIRCULAR ECONOMY
The aim of the course is the contact of the students with the zero waste circular economy. Aims to waste prevention using zero waste innovative companies. Aims to go from the traditional waste management to innovative zero waste systems. Demonstrates the repair and the reuse. Supports the recovery of the waste incineration energy. Aims to the sustainability. Studies the low carbon technology. Aims to the recycling of chemicals and other materials. Investigates the combustion of the Refuse Derived Fuels (RDF) in the cement industry.
Upon successful completion of the course, the students will be able to:

- Stimulate the zero waste circular economy concept.
- Communicate with more specialized scientists and technicians on issues related to waste preventions using zero waste innovative companies.
- Recommend the transition from the traditional waste management to innovative zero waste systems.
- Establish the repair and the reuse options.
- Support the recovery of the waste incineration energy.
- Describe the sustainability concept.
- Support the low carbon technology.
- Stand for the recycling of chemicals and other materials.
- Investigate the combustion of the Refuse Derived Fuels (RDF) in the cement industry.

STRATEGIC MANAGEMENT & ENTREPRENEURSHIP
The aim of the course is to understand how different types of organizations design, formulate, and implement value-creating strategies to achieve competitive advantage and superior performance relative to their rivals. The course will therefore focus on the strategy making processes by first analyzing an organization's external environment and internal organization to determine its resources, capabilities, and core competencies—the sources of its "strategic inputs". Further, we will examine the strategy formulation process by discussing business- and corporate-level strategies, paying particular attention to current issues such as ambidextrous and innovation-based strategies, mergers and acquisitions, and global-focused strategies. Finally, we will study the strategy implementation process by analyzing corporate governance, organizational structure, and entrepreneurship as vehicles to realize value from strategic choices.
Upon successful completion of the course, the students will be able to develop a set of skills and increase their understanding of key concepts referring to:

- The role and value of strategic management in achieving high competitiveness and superior long-term performance.
- The practices of analyzing a firm's competitive environment by using different models and tools.
- The different dimensions of a firm's internal environment and importance of its interplay with the external environment.

- The different choices in terms of formulating a successful competitive strategy for attaining above-average, sustainable returns.
- The critical success factors of corporate-level strategies and their importance for a firm's viability and growth.
- The different forms of strategy implementation and their effect of realizing strategy gains.

ADVANCED ERP SYSTEMS FOR SUPPLY CHAIN MANAGEMENT – SAP APPLICATIONS

The course "Advanced Topics on ERP Systems – Applications with SAP" presents special and advanced topics of design, planning and management of the Supply Chain using the ERP SAP system, and focuses on business process integration, covering its entire spectrum. The business operations that are addressed in the course lectures and the respective ERP modules are tabulated below:

Business Process Module
Sales (SD) – Sales and Distribution
Production (PP) – Production Planning and Control
Procurement (MM) – Materials Management
Project Management (PS) – Project System
Storage (WM) – Warehouse Management
Financial Management (FI/CO) – Financial Management / Controlling

The aim of the course "Advanced Topics on ERP Systems – Applications with SAP" is to provide to the students with an understanding of the mechanisms and the ways an ERP system employs in taking complex and complete decisions related to Supply Chain operations. Discrete objectives are summarized in the students gaining a broad knowledge spectrum corresponding to complex business problems, such as, in particular:

- Planning and execution of complex, realistic business operations of the Supply Chain
- Identification of integration points between supply chain functions and verification of relationships during their planning
- Project modeling and management
- Special supply chain transactions
- Executive reporting

QUALITY AND RISK MANAGEMENT

The course evolves in two parts:

The 1st part of the course aims at introducing postgraduate students in the field of project risk management for the complete lifecycle of small, medium and large-scale projects. Furthermore, it provides students with in-depth understanding of fundamental methodologies and IT tools which support decision-making in the areas of project risk identification, evaluation, planning and monitoring.

The 2nd part of the course aims at introducing postgraduate students in the field of quality management of projects for their complete lifecycle. It introduces students in the concept of quality and the basic management processes (quality planning, assurance and control). For each of them, provides students with in-depth understanding of IT tools and techniques according to widely accepted and used methodologies.

The material is aligned with globally applied methodologies and techniques as defined by Project Management Institute (PMI).

C' SEMESTER

DISSERTATION

It is an in-depth investigation of a topic that is part of the cognitive field of the MSc. The Dissertation can be either research or bibliographical. It is carried out by postgraduate students under the supervision of a lecturer of the MSc. After the completion of the second semester of studies, students choose a topic and a supervisor. The choice of the topic is based on the student's interests and after consultation with the supervisor. Further information can be found at https://texmaster.unipi.gr/wp-content/uploads/2024/01/ΚΑΝΟΝΙΣΜΟΣ-ΕΚΠΟΝΗΣΗΣ-ΜΕΤΑΠΤΥΧΙΑΚΗΣ-ΔΙΠΛΩΜΑΤΙΚΗΣ-ΕΡΓΑΣΙΑΣ.pdf.

MANAGING KNOWLEDGE AND ORGANIZATIONAL CHANGE

The aim of the course is to understand why and under which conditions and mechanisms knowledge is considered as one of the most important resources of modern organizations, leading to successful implementation of organizational changes,

generation of innovation, and attainment of sustainable competitive advantage. This course, therefore, aims at understanding and implementing concepts and management practices that refer to the effective acquisition, processing, and use of knowledge resources in a way that allows organizations to learn, innovate, adapt to changes occurring in their internal and external environment, and achieve high performance

Upon successful completion of the course, the students will be able to develop a set of skills and increase their understanding of key concepts referring to:

- The different approaches towards managing organizational knowledge and the corresponding practices of completing knowledge-based projects within modern organizations.
- The mechanisms and processes of acquiring and utilizing knowledge assets for attaining innovative outcomes and managing (technological and organizational) changes.
- The different strategies available for establishing and managing collaborations and alliances for managing knowledge resources and organizational change.
- The interrelationship between knowledge resources and organizational learning, and the management of tensions and (seemingly) conflicting strategic goals.
- The key success factors of project teams designed to manage key knowledge assets and organizational change.

HUMAN RESOURCE MANAGEMENT

The aim of the course is to understand how human resource management operates as a critical condition for the design and implementation of an organization's strategy, for achieving competitive advantage, and for attaining positive organizational performance. The course will be therefore analyzing the management practices and concepts implemented for high job performance and satisfaction, for achieving high motivation in complex tasks, and for the effective management of employee's personality and behavior. Further, we will analyze team and organizational performance by emphasizing on topics such as leadership, communication, group dynamics, conflict management and negotiations, and current forms of organizing work.

Upon successful completion of the course, the students will be able to develop a set of skills and increase their understanding of key concepts referring to:

- The role of human resources in an organization's strategy and performance.
- The practices of managing a diverse workforce in relation to their personality, behavior, motivation, and emotions.
- The practices and behaviors of effective leadership in highly dynamic environments.
- The critical success factors of teamwork, focusing on managing conflicts and on understanding the role of power and politics.
- The different forms of organizing work and the role of organizational culture.

INDUSTRY 4.0 SYSTEMS

Modern world is characterized by the emergence of a new production model that is internationally identified by the term Industry 4.0. The core of this model is based on the increased digitization of production processes, in which physical objects are integrated with the information network, allowing the decentralization of production and its adaptation to the prevailing external conditions in real time. Key feature of this new model is the extensive further automation of production systems in order to increase their speed, flexibility and efficiency, without jeopardizing sustainability and/or safety. The scope of the course is to present in detail this new model that combines both elements of new technologies and forms of organization, such as cyber-physical systems, decentralized production systems, 'smart' logistics/manufacturing systems, 'smart' energy systems, advanced work support systems, etc.

Upon successful completion of the course, the students will have understood the concept of Industry 4.0 and the associated technologies involved, analyzing and discussing relevant topics such as:

- Industrial Internet of Things – IIoT
- Advanced/'Smart' Manufacturing
- 'Smart' Factory & Products
- Ppreventive diagnostics techniques and facility maintenance
- Digital Twins, Augmented Reality, etc.

EQUIPMENT AND FACILITY MAINTENANCE

The requirement of applying facility management to a company's building facilities is well known. Service logistics, the support after sale activities of a fixed asset, device or installation to operate optimally and continuously during the warranty period and/ or its overall life cycle is a key element in the viability of the corresponding businesses. Also, in manufacturing companies the performance depends directly on the availability of their equipment. Management of maintenance and spare parts are the main activity in all three above functions. In this context, the aim of the course is to analyze key concepts about Management, Organization, Operation and Alternative Maintenance and Spare Parts Policies in a company.

Topics that addressed in the course include:

- Modern trends in corrective, preventive, total productive maintenance (TPM), and reliability centered maintenance as well as the effect of maintenance in energy saving, environmental protection and personnel safety
- Current trends, options, and guidelines for drafting and managing the best maintenance service contract when outsourcing to contractors (OUTSOURCING)
- Application of computerized tools for maintenance and spare parts management

Upon successful completion of the course, the students will:

- understand the alternative ways of maintenance and the way they are designed and organized in a business as well as management activities for the required spare parts
- become familiar with the alternative options in outsourcing maintenance and drafting the corresponding contracts
- understand how to apply computer assisted tools in maintenance activities
- understand the need of adopting modern organizational practices for equipment and facilities management where the concept of availability, reliability , energy saving, and operator safety prevails
- successfully apply the techniques taught in real situations

HUMANITARIAN LOGISTICS

Logistics/ supply chains play a central role in all humanitarian operations. The fundamental task of a supply chain is to deliver the appropriate supplies, in quality condition, in the right amounts, to the locations at the time that they are needed. However, humanitarian logistics is faced with unique challenges: Humanitarian and non-governmental organizations (NGOs) typically operate in hard environments with limited resources. Their supply chains must be on one hand ready to respond and be deployed within a 72 hours' time-window from the time of a disaster, delivering supplies in order to prevent loss of life and human suffering, under great uncertainty due to disruptions; on the other hand they must be capable to operate longer-term development programs. In both cases, the critical infrastructure, including the transportation and communication systems, may have been severely damaged.

Upon successful completion of the course, the students will be able to acquire skills and up-to-date knowledge in key themes of humanitarian logistics, an extremely interesting topic especially for Hellas, considering the migration/refugees flows the country is facing the last seven years.

URBAN/CITY LAST MILE LOGISTICS

The aim of the course is to obtain skills and up-to-date knowledge on basic areas pertaining to supply chain management. The aim of the course is to acquire knowledge in the main thematic sections of City Logistics, and the practices applied at an international level, as well as the evolutions that will exist in the near future

Upon successful completion of the course, the students will be able to:

- be familiar with basic concepts of city logistics

understand the impact of Urban Logistics on the operation and sustainability of today's urban centers and megacities, as well as on the prospects of modern businesses.

INTERNSHIP

The main objective of the Internship is to acquaint the postgraduate students of the Department with the subject, the internal structure, the organization and the functioning of businesses and organizations in real working conditions, in order to link theory with practice. The Internship, on the one hand, contributes to the better utilization and assimilation at a professional level of the knowledge and skills acquired by postgraduate students during their

studies and, on the other hand, provides opportunities to strengthen their scientific training with professional skills and qualifications. In addition, they acquire experience, personal maturity and professional, team and social consciousness that are essential skills. The professional networking with institutions and executives of the market strengthens the

smooth integration of the graduates into the production system of the country. In addition, the participation of students in the program enhances the Department's linkage to the market and contributes to the development of cooperation networks. More information can be found at https://texmaster.unipi.gr/en/internship-program/.

DIGITAL TRANSFORMATION AND OPERATIONS MANAGEMENT

The course aims to help graduates of the MSc as future executives of Logistics and Supply Chain Management departments in using and applying cutting-edge technologies, mainly technologies of the 4th Industrial Revolution, in efficiently managing business operations in complex production/distribution systems.

Upon successfully completing the course, students will be able to effectively manage their companies' business operations using cutting-edge technologies such as the Internet of Things, Artificial Intelligence, Big Data and Analytics and, finally, Distributed Ledger Technologies.

SUSTAINABLE AND GLOBALIZED SUPPLY CHAINS

The aim of the course is to describe the phenomenon of global supply chains and the factors that influence their evolution. Teaching focuses on analyzing the environmental impact of supply chain decisions, with particular emphasis on the impact of green transport and new trends in logistics sustainability in the context of increasing urbanization and e-commerce. Particular emphasis is placed on the challenges associated with suppliers from other parts of the world and the responsibility companies have to ensure that their suppliers act in accordance with national and international regulations and corporate social responsibility (CSR) practices. It studies practical alternatives to optimize CO2 emissions using data analysis. It examines "fast" and "green" delivery in the new digital age, the relationship of consumers to sustainable products and services, and the environmental costs of express e-commerce. Finally, it presents CSR principles based on global sustainable governance, international standards, international agreements and initiatives (UN, OECD, EU, ISO 26000, etc.).

Upon successful completion of the course, the students will be able to:

- assess the sustainability of global supply chains,
- identify the opportunities and risks associated with them,
- formulate strategies and proposals for the "greening" of these chains.

They will also master the principles, processes and tools for the sustainable management of supply chains, the use of new anti-pollution and digital technologies to ensure sustainability, as well as the political and institutional framework governing global supply chains.

RESEARCH METHODOLOGY

The aim of the seminar series is to familiarize students with the main concepts of research methodology, the basic know-how for the drafting of scientific projects and the usual techniques and software used in writing, searching, results processing, data acquisition, referencing, categorization, etc. Also, students will develop the necessary skills to meet the requirements of structure, content, bibliography, appearance and presentation of a small-/medium-sized scientific work (paper, literature review, thesis, technical text, etc.).

Using examples, case studies and relevant audiovisual material, students will be able to understand scientific texts as they develop skills related to:

- the use of language as the primary and essential communication tool with which scientific knowledge is transmitted from the author to the reader
- the formulation of the problem to be investigated and the hypotheses regarding the possible causal factors that contribute to the problem, the decomposition of the problem into sub-units and parameters, the determination of the study limits regarding the problem and the methodological approach of the sub-units and parameters of the problem
- search techniques for data, knowledge and information
- the evaluation of bibliographic sources and data
- the effective use of IT tools (search software, results processing, data presentation, referencing and citations).
- the drafting and elaboration of a project (data/information search, organization of data/information, presentation, documentation, inference)
- writing texts in a scientifically correct way, presenting/analysing the topic of the work in all its pre-defined dimensions

- the application of ethics and morality in writing
- the documentation of the work so as to contribute to the advancement of knowledge on the subject presented
- the oral presentation of scientific work and/or technical study
- the organization, coordination and elaboration of group work (planning, assignment of roles, schedules, style harmonization, presentation).