

PROFESSIONAL UNDERGRADUATE STUDY OF SUPPLY CHAIN MANAGEMENT

COURSE OBJECTIVES AND LEARNING OUTCOMES

The Fundamentals of Economics

Course objectives

By mastering the material of this course, students will master the basic concepts of economics that make up economic activity both at the level of the smallest economic entity and at the global level. They will study these concepts and processes at the level of households and companies (microeconomics), the state (macroeconomics) and through economic relations between the inhabitants of different states. In this way, they will acquire the ability to analyze the entire economic processes and apply the acquired knowledge to other professional areas. Acquired knowledge of economics provides the basis for studying a series of courses in the field of business economics, that is, enterprise economics and related disciplines.

Learning outcomes

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

1. analyze basic economic terms
2. discuss the concept of a modern market economy and the role of the state
3. formulate the law of supply and demand
4. determine the types of costs and their impact on the company's result
5. argue the movement of the most important microeconomic categories
6. create macroeconomic goals of the country's economy
7. formulate the role of fiscal, monetary policy and the central bank.

The Fundamentals of Management

Course objectives

The goal of the course is to enable students to understand managerial concepts and the complex role and tasks of management in modern organizations, given that the course provides a concise overview of the central topics faced by managers today. Equally, the goals of the course refer to the acquisition of knowledge about basic managerial functions, methods and ways of working and their application in solving management and business problems in complex conditions. As part of the course, attention will be paid to mastering and developing one's own potential and competencies for management analysis and performing managerial tasks at different organizational levels and in different organizations.

Learning outcomes

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

1. analyze the basic concepts of management
2. discuss managerial functions
3. argue management theories and approaches
4. rank management
5. judge the management environment
6. create the challenges of modern management
7. organize socially responsible management.

Communication Studies

Course objectives

The aim of the course is to acquaint students with the basics of communication and public communication, types of communication (verbal, non-verbal), to teach them how to successfully use certain forms of communication in everyday life, as well as in public performances. Lectures provide students with an insight into the basics of communication and communication, from its beginnings and development to different forms of communication (interpersonal, intrapersonal communication, verbal, non-verbal communication) with an emphasis on types of communication in different fields of activity and other scientific disciplines. Analysis of the connection of communication with linguistics, psychology, sociology, anthropology (interdisciplinary or multidisciplinary) and their interaction in everyday life. Through seminar papers and presentations, students will study in more detail different types of communication between subjects in society, as well as communication through different types of media (analysis of advantages and disadvantages of individual media).

Learning outcomes

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

1. distinguish basic communication terms,
2. to reconsider certain forms of communication,
3. to argue the interdisciplinary character of communication as a science,
4. judge the effects of communication on different areas of human activity (relationships with friends, relatives, acquaintances, business partners...),
5. come up with different persuasion strategies and analyze their effectiveness,
6. interpret the action of interpersonal communication in different contexts.

Mathematics 1

Course objectives

1. Define the term vector
2. Explain the vector product
3. Calculate arithmetic operations with vectors
4. Explain the concept of function
5. Determine the limes function
6. Calculate the derivative of the function
7. Make a function analysis
8. Draw the function
9. Draw asymptotes

Learning outcomes

1. break down basic terms about vectors.
2. calculated vector calculus.
3. solve derivatives in function analysis
4. discuss the results of differential calculus
5. determine the course of the function
6. argue L'Hospital's rule
7. construct asymptotes

The Fundamentals of Marketing

Course objectives

The goal of the course is to gradually familiarize students with the basic principles of marketing, to point out the possibilities and limitations they will face in marketing activities, and to train them for theoretical knowledge and practical application of marketing. The exercises in the course refer to the concrete creation of a marketing plan based on the example of a Croatian product or service. In this way, students gain an insight into all types of marketing strategies and activities realized on the existing market.

Learning outcomes

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

1. analyze basic marketing terms and concepts
2. discuss the role of marketing in society and in organizations
3. adopt marketing knowledge and techniques
4. formulate concrete marketing problems
5. create a product life cycle
6. classify different forms of marketing
7. apply the philosophy of marketing thinking in your environment.

Methodology of Writing Seminars and Final Papers

Course objectives

The aim of the course is to acquaint students with the basics of the methodology of creating scientific and professional work, to train them in the use of different research methods for the purpose of selecting and implementing some of them when creating the final work. In addition, students will become familiar with different citation styles and their application, which is necessary for the production of quality scientific and professional work.

Learning outcomes

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

1. distinguish scientific research from professional research,
2. check different sources in data collection (archives, libraries, databases, online sources),
3. distinguish two basic citation styles (European/Oxford and American/Harvard),
4. create a research plan,
5. compile different data collection methods in research (qualitative and quantitative),
6. formulate the obtained results.

Logistics Systems

Course objectives

Getting to know the concept of business logistics and understanding the functioning of logistics systems and logistics processes, as well as acquiring basic knowledge about the introduction of logistics into practice and making logistical decisions.

Learning outcomes

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

1. Analyze the concepts of logistics systems
2. Calculate logistics processes
3. Compare logistics subsystems of companies
4. Assess the importance of business logistics in logistics systems
5. Determine the importance of cooperation in logistics systems
6. Evaluate integral logistics
7. To propose a logistics system in the company.

Business Accounting

Course objectives

The aim of the course is to familiarize students with the basic elements of accounting, to familiarize them with the process and meaning, to understand the role and use of data.

Learning outcomes

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

1. analyze basic accounting terms
2. differentiate accounting processes
3. solve the accounting logic
4. judge accounting documents
5. determine the balance
6. judge the profit and loss account
7. formulate an accounting policy.

The Fundamentals of Entrepreneurship

Course objectives

The goal of the course is to encourage creative business thinking and train students to make concrete, market-based and profitable business (entrepreneurial) decisions.

Learning outcomes

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

1. create your own business plan
2. analyze basic theoretical concepts from the field of entrepreneurship
3. create your own business plans
4. develop self-employment
5. formulate the loan repayment calculation
6. plan depreciation
7. formulate financial indicators.

Company Organization

Course objectives

The aim of the course is to acquaint the student with basic concepts from organizational theory, as well as with contemporary trends in organization, starting from the factors that influence the organization's design. As the organization is dynamic and in constant motion, certain attention is paid to changes as well as to the development of a learning organization. The knowledge that the student will acquire in this course can be universally used for the organization of any company, bank, institution in the profit or non-profit sector.

Learning outcomes

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

1. analyze the principles of organization
2. discuss organizational shaping factors
3. determine organizational structures
4. to rank societies
5. classify societies
6. determine business functions

7. connect different organizations of society.

Transport Systems

Course objectives

The aim of the course is for the student to get to know the basic concepts and structure of transportation transport systems.

Getting to know the methodology of planning, management, control and analysis of all processes in transport chains and transport systems.

Learning outcomes

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

1. analyze the basic technical and technological aspects of transport systems
2. discuss the characteristics of transport modes
3. review the acceptable transport service for the specific transport demand
4. differentiate the role and interests of different stakeholders in the transport chain
5. judge classic and intermodal technologies of the transport chain
6. evaluate the optimal technology in the realization of transport chains.

Business English 1 beginner

Course objectives

The goal of the course is to develop three basic components:

1. knowledge and skills of the general English language;
2. basics of oral and written business communication with an emphasis on cultural diversity determined by language;
3. business terminology;

Learning outcomes

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

1. use and serve professional literature in a foreign language.
2. train for distinguishing important elements in a complex professional text.
3. develop the ability of concise and clear expression within professional topics and communication skills.
4. demonstrate with a contrastive approach they are able to observe linguistic and cultural differences that are manifested in different media.

Business English 1 Advanced

Course objectives

The goal of the course is to develop three basic components:

1. business communication skills, oral and written with an emphasis on presentation skills, conducting business conversations and conversations in a wider social context, that is, skills of various forms of formal business correspondence;
2. professional language, business terminology with an emphasis on marketing and communications;
3. general English with an emphasis on the cultural diversity determined by the language, expression of politeness and style, emphatic speech, connection of verb tenses and meanings;

Learning outcomes

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

1. present and hold an oral presentation on a given topic from the field of expertise using modern technology.
2. interpret and define and describe basic concepts from the subject of the profession.
3. discuss the presented and treated topics and argue their own positions.
4. develop skills in writing different types of texts depending on the level of knowledge.
5. understand and listen to the speech of native speakers at different levels.

Introduction to International Relations

Course objectives

The aim of the course is to acquaint students with the basic terms related to international political, economic and security relations, basic features, political institutions and individual policies of the UN, the European Union and the NATO alliance, as well as the processes that take place at the global and various regional levels and that affect Republic of Croatia, but also on the sustainability of the global political-economic-security system.

Students will become familiar with the subjects of international relations and learn to recognize and define the contents of international political, economic and security relations, their most important factors, and the fundamental features and influences of the globalization process.

In addition, after taking the course, students will be able to describe and define fundamental global challenges and problems, their regional reminiscences, as well as factors that affect the sustainability of the global system. Students will be able to independently and critically observe and recognize (by analyzing and synthesizing) the processes covered by the name international relations, understand them, communicate them and interpret them authentically.

Learning outcomes

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

1. analyze the issue of international relations
2. discuss the complexity of contemporary international relations;
3. judge the most important actors of diplomatic relations;
4. to review the basic terms related to diplomacy and diplomatic relations
5. evaluate economic diplomacy;
6. judge the features and impacts of the globalization process;
7. to classify the lines of international relations in the area of Southeast Europe
8. formulate knowledge related to the political institutions of the European Union and the NATO alliance.

Mathematics 2

Course objectives

1. Get to know the concept of integral
2. Define a definite integral
3. Explain the antiderivative of a function and the indefinite integral
4. Apply the Leibniz-Newton formula
5. Use direct integration
6. Use the substitution method
7. Use the method of partial integration
8. Apply definite integrals
9. Calculate the area of plane figures

Learning outcomes

1. analyze the concept of integral
2. distinguish the integration table
3. calculate indefinite integral
4. calculate the definite integral
5. calculate the surface area of plane figures using integrals.

Knowledge of Commodity Supply Chains

Course objectives

The main goal of the course is to train students for a concise consideration and analysis of all materials and raw materials important for the production of products, an ecological approach in the production of packaging, and proper storage and positioning of goods in the sales area. It also aims to increase students' ability to manage different products and goods in supply chains using best practice examples.

Learning outcomes

By successfully completing the course, students will be able to:

1. analyze the concepts of knowledge of goods
2. discuss the types of goods
3. compare the physical and chemical properties of goods
4. check the quality of the goods
5. differentiate the use of goods in supply chains
6. determine adequate packaging according to the type of goods
7. evaluate the storage of goods.

Shipping Company

Course objectives

The goal of the course is to enable students to acquire the necessary knowledge (theoretical and practical) to work in jobs that are directly related to the delivery and shipment of goods necessary for production or distribution to end consumers in domestic or international business. In addition, the course will familiarize students with the organization of work in forwarding, and explain the rules and norms for work in forwarding, and especially explain the international rules INCOTERMS® 2010 and 2020, and prepare students to acquire enough knowledge and skills to be able to perform practical tasks in to companies related to customs and tariffs and the main business of international forwarding.

Learning outcomes

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

1. to break down terms in forwarding.
2. differentiate the role of forwarding in supply chain management.
3. calculate work process in forwarding.
4. determine norms in forwarding.
5. compare the application of INCOTERMS 2010® and INCOTERMS 2020®
6. evaluate the tariff for forwarding and transport services.

Trade and Distribution

Course objectives

The goal of the course is to enable students to acquire the necessary knowledge (theoretical and practical) to work in jobs related to trade, distribution as a link to and in relation to logistics channels, i.e. supply chains, in domestic and

international business. In addition, the goal is to instruct students in the possibility of practical use of acquired competencies in the field of trade, distribution and logistics in the performance of daily business activities and as a basis for studying other related disciplines.

Learning outcomes

1. By successfully completing the course, students will be able to:
2. Break down concepts in trade and trade operations.
3. Differentiate basic processes and their areas in trade business.
4. Determine distribution, distribution functions and distribution channels.
5. Compare distribution and logistics channels in trade.

Selected Chapters from Traffic Mechanics

Course objectives

To ensure students' competencies by providing basic and advanced knowledge needed for management and supervision of real traffic processes within logistics chains. Adoption of methods and algorithms of action for the safe and efficient implementation of traffic processes of passenger transportation and/or goods transportation, based on the adopted knowledge from computational and/or graphical methods and models, laws and axioms, with the aim of adapting real conditions to the conditions of application in the adopted models.

Learning outcomes

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

1. analyze the basic concepts and axioms of the statics of rigid bodies
2. distinguish the conditions of balance of forces and moments
3. calculate rolling friction and sliding friction models
4. discuss basic concepts from kinematics, dynamics and collisions
5. differentiate learned models with real traffic situations
6. to support the most favorable solutions for increasing traffic safety.

Technical Logistics

Course objectives

The aim of the course is to familiarize students with the concept and structure of technical logistics. Acquiring the knowledge and information necessary for a holistic understanding of the functioning of the process of parts and elements of supply chains, as well as the strategies of mutual connection and actions of participants in the supply chain. Adoption of approaches, methods and procedures for efficient and effective exploitation of resources, while minimizing costs in the basic areas of logistics and maximizing value for the user. Students gain knowledge about information systems and technologies as well as *E-business*, which occupies a significant place in business systems. The aim of the course is to prepare students to acquire enough knowledge and skills to be able to perform practical tasks in companies related to basic logistics areas and logistics management. Understand that logistics problems are not solved according to pre-set formulas, but it is the art by which, either an individual or a team, combines changing internal with even more changing external logistical factors and conditions in establishing the kind of logistical support that will enable the company to realize its set goals as successfully as possible.

Learning outcomes

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

1. analyze terms and technical elements in logistics
2. distinguish criteria and standards for evaluating the quality and reliability of logistic support
3. compare different management solutions for integral logistics support (basic areas)
4. determine information systems as part of technical logistics

Information Technologies in Business

Course objectives

This course should give students an insight into the modern possibilities of using information and communication technologies in business in the 21st century.

Course objectives:

- describe how information and communication technology (ICT) affects the operations of modern companies;
- by means of an example, show how the company's business itself changes with the use of ICT;
- train students for independent and advanced computer work, while using the Microsoft operating system and Office tools;
- to explore business via the Internet and its perspectives and possibilities and
- use available databases on the Internet to search for business information.

Learning outcomes

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

1. analyze the structure of the company's information system
2. review the real situation and needs for information literacy;
3. discuss the impact of information technologies on people and society;
4. determine the basics of modern information and communication technology;
5. differentiate different models of electronic business
6. construct a way of obtaining information through available databases.

Professional Practice

Course objectives

The goal of the course is for the student to acquire practical knowledge and skills that enable him to complement the theoretical knowledge he has acquired or that he acquires in the teaching process, and which through professional practice he learns to apply in the teaching work environment, which qualifies him for work on the market. Equally, the goal is for the student to be involved in the day-to-day work and activities of the organization in which he is doing his professional practice, and through the daily tasks he receives from the mentor, he learns to solve problems and critically approach tasks within the given deadline.

Learning outcomes

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

1. compile a schedule of work during the entire internship
2. create work materials for the execution of work tasks in marketing or communications.
3. formulate the written form of the material within the given deadline
4. explain the steps in creating promotional campaigns for a specific event or product.

Supply Chain Planning

Course objectives

The goal of the course is to acquire the knowledge and information necessary for a holistic understanding of the functioning of the process of parts and elements of supply chains, as well as the strategies of mutual connection and actions of participants in the supply chain. Adoption of approaches, methods and procedures for efficient and effective exploitation of resources, while minimizing all business costs through optimization of business processes. Students gain knowledge about information systems and technologies as well as *E-business*, which occupies a significant place in business and logistics systems.

Learning outcomes

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

1. analyze logistics systems
2. to critically judge development trends in logistics
3. compare logistics subsystems, logistics task areas, logistics within business functions
4. determine the connection and interdependence of work and logistics processes
5. evaluate the fundamental features of work processes as complex, dynamic and manageable systems
6. critically evaluate the management of logistics processes
7. rank new organizational and logistical paradigms.

Business Statistics

Course objectives

Through the Basic Statistics course, students are introduced to the basic knowledge of statistical methods used in economic disciplines such as accounting and finance, as well as in business research. Students adopt a critical attitude towards the statistical way of reasoning, considering the limitations, which are immanent to statistics as a science.

Learning outcomes

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

1. analyze basic statistical methods
2. calculate statistical characteristics
3. calculated sample
4. evaluate the statistical model
5. formulate a time series
6. construct a prognostic model
7. create solutions using statistical software support.

Management of the Supply Chain System

Course objectives

Acquaint students with the basics of managing complex supply chain systems, and enable them to adopt special approaches and methods of managing supply chains and thus be trained to apply them to practical examples and real business entities that are present on the market.

Learning outcomes

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

1. To create on a real example from practice the best combination of factors that influence the design of the distribution network
2. Independently design the most efficient supply chain management system
3. Optimizing supply chain operations in order to reduce operating costs
4. Choose the most optimal way of transportation and storage in the supply chain
5. Continually take care of the satisfaction of the end user in real time
6. Coordinate user needs with all available supply chain resources with the goal of long-term sustainable growth and business development.

Market and Public Opinion Research

Course objectives

The aim of the course is to acquaint students with the organizational structure of market research and marketing policy. To convey to students basic theoretical and practical knowledge about modern methods of market monitoring and research, as a basis for making business, and especially marketing, decisions.

Learning outcomes

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

1. break down the terms of market research
2. discuss research methods
3. argue the selected research method
4. distinguish between market research methods
5. collect data necessary and sufficient for research
6. organize market research
7. classify the results of market research.

Inventory Management

Course objectives

To acquaint students with the basics of inventory management in supply chain systems, so that they are able to recognize and apply the best models and methods of inventory management and thus be trained to apply them to practical examples and real business entities that are present on the market.

Learning outcomes

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

1. Recognize and apply inventory management models and methods in supply chains
2. Independently design the most efficient inventory management system
3. To implement the optimization of the supply chain inventory maintenance system in order to reduce business costs
4. Choose the most optimal approach to storing goods in the supply chain
5. Create diagrams of inventory management in the supply chain using a real example
6. Coordinate the needs of users for goods with optimal supplies of the supply chain in the direction of maintaining long-term stable business relations.

Information Systems of Supply Chains

Course objectives

Familiarize students with information systems, how to design them, find a system contractor, check system functionality and control system operation in supply chain processes. Compare ready-made information systems. Compare commercial solutions with open source solutions. Determine the information system that is optimal for use.

Learning outcomes

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

1. Define the requirements for the business information system
2. Explain the functioning of the information system
3. Determine the contractor of the information system
4. Determine the functionality of the information system
5. Develop information system benchmarking.

Modeling of Supply Chain Processes

Course objectives

Raise the level of knowledge about modeling processes and the supply chain system. The student is required to understand:

all parts of the supply chain and their interconnections and processes, transport system modalities and integration into integral supply chains, supply chain process modeling methodology.

Learning outcomes

1. argue the basic features of traffic modeling
2. distinguish models of logistics planning
3. support strategic logistics planning
4. differentiate between the quality management system of multimodal and intermodal transport chain
5. evaluate the role of transport systems in the logistics model, macrologistics and micrologistics organization, technology, transport infrastructure and means of transport in the logistics model.

Competitiveness of the Economy

Course objectives

The aim of the course is to demystify the concept of competitiveness in the context of the national economy with a special emphasis on how to achieve this in the conditions of a narrow (small) internal market.

The course is designed as a synergy of theoretical and practical knowledge so that students get a complete picture of the state of the economy and an understanding of the observed issues, in accordance with the modern conditions imposed by the 21st century.

Through lectures, students analyze the key problems of the economic system of the Republic of Croatia, as well as the development potentials according to individual teaching units.

Through the process of economic integration and the achievement of full membership in the EU, students in this course will observe the competitive ability of the national economy through the prism of its operation in the overall economic system of the EU. After taking the course, students will acquire the competencies necessary to monitor the competitive ability of national economic entities and compare them with the abilities of companies within the EU.

Learning outcomes

While participating in the course work, students will be able to:

1. evaluate the state of the national economy
2. discuss international economic processes and their impact on the development of the national economy
3. to critically judge the comparative advantages used by countries to create a more competitive economy
4. develop competitiveness on the international labor market
5. to create competitiveness on the international market of goods and services.

Quality of Supply Chains

Course objectives

Introducing students to the topic of supply chain management, as an integrated discipline that connects several different areas (business process management, logistics, transport, procurement, information technology, etc.), with an emphasis on modern 21st century supply chains and their quality.

Learning outcomes

Expected learning outcomes:

1. determine the concept of quality
2. distinguish quality assurance systems
3. evaluate quality systems in the organization
4. argue the quality of the supply chain.

Optimization of Supply Chain Processes

Course objectives

- Define the concept of supply chain management optimization
- To pose the problem of optimization of supply chain management
- Choose a method of solving the optimization of supply chain management
- To solve certain optimization problems of supply chain management
- Conduct postoptimal analysis.

Learning outcomes

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

1. define basic terms from the field of optimization.
2. explain the factors that are needed to set up the problem.
3. know how to apply optimization methods of inventory management
4. solve numerical problems of inventory management optimization.
5. analyze post-optimal optimization solutions.

Ecology of Supply Chains

Course objectives

To provide basic and advanced knowledge about ecology and ecological aspects of supply chains

Adoption of approaches, methods and procedures for efficient and effective ecological implementation of supply chains in light of the circumstances in the Republic of Croatia and the world.

Learning outcomes

1. define and describe the ecological aspects of supply chains (enl. Green Supply Chain Management).
2. explore and analyze the benefits of ecology and green supply chains.
3. research and analyze the legislation and regulation of ecology.
4. describe and analyze reverse logistics, external costs, consequences of global warming.
5. analyze and explain the advantages of renewable energy sources, alternative fuels and hybrid vehicles.
6. independently create and present a seminar paper on a given topic, applying acquired knowledge and skills, while connecting and comparing knowledge from professional and scientific literature, and proposing modified solutions for application on real examples from the Republic of Croatia and/or the EU.