



**UNDERGRADUATE STUDY:**  
**TRANSPORT, ITS AND LOGISTICS, AERONAUTICS**  
**SEMESTER (III)**  
**Syllabus**

Academic year 2023/2024

Course:		<b>Transport Economics</b>			
Head of course: Prof. <b>Mihaela Bukljaš</b> , Ph.D.					
Co-lecturers:					
Semester: <b>III</b>	Course code: <b>27433</b>	Lectures: <b>30</b>	Seminar: <b>15</b>	Laboratory exercises:	ECTS credits: <b>5</b>
Group for lectures: <b>30 – 40 Students</b>			Group for auditory and laboratory exercises: <b>30 – 40 students</b>		

**Objective of the course:**

- Economy, economic, transport economics and their basic concepts and determinants. Economic growth conditioned by economic policy. Transport system contemporary determinants through the implementation of important systems theory phenomena, the interconnectedness of elements of the transport system and traffic interaction with his environment. The importance of transport policy, the structure of the transport system and the advantages of modern transport technologies, and the importance of cooperation transport sub-systems on the market of transport services. The ownership structure of companies specialized in the creation of optimal conditions for their management. Transport costs managing, basic criteria for their divisions, specific transportation costs, control operations, and performance indicators. Elements of the transportation infrastructure, operational infrastructure policy objectives and methodology for assessing the economic feasibility of the construction of transport infrastructure. Investment projects evaluation, their role, determining the costs and benefits of investment projects and methodology of selection of investment projects.

**Learning outcomes:**

After completing the course, students will be able to:

1. Define the basic concepts in economics, economics, economics of transport, described the economic policy guidelines of modern transport system, transport policy, the transformation in the structure of ownership of transport companies. Identify costs in the transport system and traffic control business enterprises and specific transport costs, the importance of transport infrastructure and the evaluation of investment projects.





2. Select elements of the transport system for vertically and horizontally, transport production to transport. Explain the types, extent and goals of transport policy, calculate the cost of the traffic and indicators of success and stability of transport companies. Predict the economic feasibility of planning the construction of infrastructure facilities.
3. Know how to apply the appropriate model in the transformation of ownership of transport companies, cost theory in the economics of transport, methods of evaluation of investment activities and to use appropriate models and methods for optimal solutions.
4. Analyse the impacts of traffic producing some transport subsystem on the total transport system and allocate production value of each traffic subsystem (traffic branch).
5. Develop and present a seminar on a given topic or idea linking parts into a whole.
6. Make conclusions based on the theories and practices and selecting the best solution.



## LECTURES and SEMINARS

Week	Syllabus	Form of classes	Performed by	Lessons	Remark
1.	<ul style="list-style-type: none"> <li>Introductory lesson (introduction to the course content, readings, examination course)</li> <li>Object of study and basic concepts</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Introducing the method of making a seminar paper, by presenting a choice of topics term papers</li> </ul>	S	Mihaela Bukljaš	1	
2.	<ul style="list-style-type: none"> <li>Economic policy in focus macro-economic systems: The economic system; Economic policy in the implementation of economic growth; Targets, subjects and measures of economic policy; Instruments of economic policy and their types</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Economic growth in developed countries and countries in transition</li> <li>International Economic Policy</li> <li>Fiscal policy</li> <li>Instruments of monetary policy</li> </ul>	S	Mihaela Bukljaš	1	
3.	<ul style="list-style-type: none"> <li>Modern transport system guidelines: Elements of the transport system; Decomposition traffic production on certain transport subsystems; Interaction between traffic system and environment; Role of the transport system in the economic policy</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>The concept and content of economy, economics, transport economics; Development and establishment of traffic service, The logistic activities of production process, Basic types of transport economics</li> </ul>	S	Mihaela Bukljaš	1	



4.	<ul style="list-style-type: none"> <li>Transport Policy: The structure of the transport system and modern transport technology; Cooperation transport sectors in the market of transport services; Role of transport policy in the transport system; Types of traffic policies and objectives; Measures and instruments of transport policy</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>The strategic objectives of the Croatian transport policy, supply and demand in the market of transport services; Shaping transport policy; Assumptions for determining the goals of transport policy</li> </ul>	S	Mihaela Bukljaš	1	
5.	<ul style="list-style-type: none"> <li>Transformations in the structure of ownership of companies specialized in traffic management; Modalities of privatization in the transport sector; Role of liberalization in trade; Regulation in the transport system</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>The processes of privatization of traffic and transportation in transition economies; Importance of regulation and deregulation in traffic</li> </ul>	S	Mihaela Bukljaš	1	
6.	<ul style="list-style-type: none"> <li>The purpose of deregulation in the transport sector and transport position in the globalization process; Transport System within a protectionist measure</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>The globalization of the economic system with emphasis on the transport system; Strengths, weaknesses and justification of subventions in the transport sector; Applications in traffic control and its goals, measures and instruments</li> </ul>	S	Mihaela Bukljaš	1	
7.	<ul style="list-style-type: none"> <li>Cost management in traffic: Costs and basic criteria for their division</li> <li>Control of transport companies: Macroeconomic aspects of cost - transportation costs; Microeconomic aspects of cost - the cost of transport enterprises</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Indicators evaluating traffic products; The ratio of transport tariffs and production costs of transport services</li> </ul>	S	Mihaela Bukljaš	1	



8.	<ul style="list-style-type: none"> <li>Application of the theory of costs in the transport economics and specificity of transportation costs</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Methods for managing traffic production costs; Specific costs in certain sectors of transport; Relationship between costs and freight transport services</li> </ul>	S	Mihaela Bukljaš	1	
9.	<ul style="list-style-type: none"> <li>Preliminary exam</li> </ul>	L	Mihaela Bukljaš	2	1st preliminary exam ended with the theme of 8th lectures
	<ul style="list-style-type: none"> <li>The concept and mission performance indicators and operational stability transport undertakings; Balance producers of transport services; Profit and loss account manufacturers of transport services</li> </ul>	S	Mihaela Bukljaš	1	
10.	<ul style="list-style-type: none"> <li>Indicators of success and stability of transport companies: productivity, efficiency, profitability, solvency and liquidity, activity and debt; Financial ratios function</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Methods of measuring productivity in the production of transport services; Other indicators of efficiency and stability of transport enterprises</li> </ul>	S	Mihaela Bukljaš	1	
11.	<ul style="list-style-type: none"> <li>The importance of transport infrastructure: The effects of external economies and external diseconomies, Elements of transport facilities; Operational objectives of infrastructure policy</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Infrastructure policy with the effects of external economies and external diseconomies; The priorities of the Croatian investment in transport infrastructure</li> </ul>	S	Mihaela Bukljaš	1	



12.	<ul style="list-style-type: none"> <li>Economic feasibility planning the construction of infrastructure facilities: Individual and social methods of investment profitability and its modalities, Methodology of Feasibility study</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>The application of cost-benefit analysis, Criteria for the selection of infrastructure projects, Future traffic predictions</li> </ul>	S	Mihaela Bukljaš	1	
13.	<ul style="list-style-type: none"> <li>Evaluation of investment projects:</li> <li>Investments and the Economy</li> <li>The core elements of investing and investment project</li> <li>Investment project and its role</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Macroeconomic implications of the construction of transport infrastructure</li> <li>Investment Planning Project</li> <li>Elements of the assessment of financial-market and socio-economic efficiency</li> </ul>	S	Mihaela Bukljaš	1	
14.	<ul style="list-style-type: none"> <li>Determining the cost-benefit analysis of their investment; Financial capacity for future investors; Methods for the selection of investment projects; Investment decisions and investment program</li> </ul>	L	Mihaela Bukljaš	2	
	<ul style="list-style-type: none"> <li>Results of investments in transport infrastructure; The area of operation of investment policy; System for financing transport infrastructure in Croatia; Applying strategic SWOT analysis of the traffic</li> </ul>	S	Mihaela Bukljaš	1	
15.	<ul style="list-style-type: none"> <li>Preliminary exam</li> </ul>	L	Mihaela Bukljaš	2	2nd preliminary exam
	<ul style="list-style-type: none"> <li>Content of the investment project</li> </ul>	S	Mihaela Bukljaš	1	

L = Lectures; AE = Auditory Exercises; LE = Laboratory Exercises; S = Seminars



## STUDENT OBLIGATIONS AND EXAMS

### Conditions for obtaining signatures:

Student must attend at least 70% of lectures and prepare and present a seminar paper to obtain signatures.

### Written exam:

#### Written exam is conducted in two ways:

- a) **Through two tests:** first colloquium will be held in mid semester and at the end of second semester. If the student does not pass the preliminary exam, no right to release the second midterm, but must take the written exam.
- b) **Through written examinations:** the written exam comes all the students who did not pass through the exam or did not enter the colloquium.

**Oral examination:** For the oral exam needs to successfully pass both of colloquiums or a written exam.

## LITERATURE

### a) Obligatory literature:

1. Button, K.: **Transport Economics**, 3rd Edition, Edward Elgar Publishing, Glos, UK, 2010.
2. Bukljaš, M.: **Transport Economics**, authorized lectures, Faculty of transport and traffic sciences, University of Zagreb, Zagreb, 2018.

### b) Recommended literature:

1. Spurling, D.J.: **Introduction to transport economics**, Universal-Publishers, Boca Raton, Florida, USA, 2010.
2. Daughety, A.F.: **Analytical Studies in Transport Economics**, Cambridge University Press, Cambridge, UK, 2008.
3. Quinet, E., Vickerman, R.W.: **Principles of Transport Economics**, Edward Elgar Publishing, Glos, UK, 2004.
4. Cole, S.: **Applied Transport Economics: Policy, Management & Decision Making**, UK, 2005.
5. Jara-Diaz, S.: **Transport Economic Theory**, Elsevier Science Ltd, 2007.



## METHODOLOGY OF THE IMPLEMENTATION OF THE COURSE PLAN

### 1. LECTURES

Lectures follow material exposed in university textbooks listed in the compulsory literature and are usually performed with the use of Power Point presentations and panels. Discussion is encouraged at a lecture by listing good practices.

### 2. SEMINARS

Seminars are conducted in a way that students design and present their paper on a given (selected) theme connecting parts or ideas in a single unit. The goal is reflected in the widening and deepening of knowledge from the content of the curriculum, using the current domestic and foreign literature. This event encourages discussion on the studied subject, gives examples from state practice as well as applications.

### **Note: Individual and/or group viewing negative written test**

Individual at the time of consultation or a designated period after each colloquium and / or written exam. If necessary and at the request of a group of students in the form post exam exercises in order to explain the most common mistakes typical, after discussion with the team responses to individual student issues.







### 3. DOCUMENTATION

Record is kept of the presence on lectures and seminars as well as successfully passed tests and exams.

### 4. SCORING SYSTEM

**Table 1** - The scoring system for the monitoring of students and explained credit values in ECTS credits

no	Segment:	Required credits to be achieved:		Remark:	ECTS credits
		Min.	Max.		
1.	Lectures	10	10	Presence $\geq$ 70%	<b>2</b>
2.	1st colloquium	20	35	1st preliminary exam ended with the theme of 8th lectures	<b>0,5</b>
3.	2nd colloquium	20	35	2st preliminary exam ended with the theme from 9 <sup>th</sup> to of end of lectures	<b>0,5</b>
4.	Written exam	40	70	<i>Replacement items 2. and 3.</i>	$\Sigma$ <b>1</b>
5.	Oral examination	/	/	Theoretical part with lectures	<b>1</b>
6.	Seminar essay	10	15	Preparation at home and oral presentation at the time of consultation	<b>1</b>
$\Sigma$	Overall points:	<b>60</b>	<b>95</b>	Overall ETCS points:	<b>5</b>

#### Assessment and evaluation of student work during class and on the final exam:

Knowledge of the student is monitored during individual and team work in seminars, accession to colloquiums and finally the written exam. The final grade is formed based on written and oral exams, as well as seminar essay.

The final grade is based on the total amount of points achieved on a written and oral exam and seminar essay: 10 points seminar essay, 10 points lectures attendance ( $\geq$  70%) and 20-35 points colloquium (minimum of 20 points to pass the colloquium). An additional 5 points, a student can achieve with a special activity in the preparation and presentation of a seminar essay.

With minimum of 60 points student can take an oral exam. Written exam can have a maximum of 70 points. Points earned for course completion signature and attendance to written exam are added to the total amount of points (to points from test (colloquium) 1 and 2 or to points from written exam).





**Table 2** - Explanation of the credit values in evaluations

CREDITS:	Estimate based on attendance, seminar paper and two colloquies (or written exam) - [4 ECTS]:	The final score [5 ECTS]:
60 - 70	Sufficient (2)	The final score after oral exam
71 - 80	Good (3)	
81 - 90	Very good (4)	
91 - 95	Excellent (5)	

All 5 ECTS can be gained in total only if the student has received a positive opinion on the oral part of the exam.

**Information for students** (scoring system, implementation plan, learning outcomes, syllabus, literature, consulting teachers, announcement of results of examinations or colloquium, and all other information):

- <https://moodle.srce.hr/2022-2023/>
- <http://www.fpz.unizg.hr>

**Student assistants:**

Additional individual work with the students through individual consultations for assignments from seminar essay, as well as for insight into the negatively written part of the exam or colloquium.

