**Course description**

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| **Generic information** |
| Head of Course | PhD Svjetlana Hess |
| Course | Transport Demand Planning |
| Study Programme | Technology and Organization of Transport |
| Type of Course | Mandatory |
| Year of Study | 2. |  |
| Estimated Student Workload and Methods of Instruction | ECTS coefficient of Student Workload | 5 |
| Number of Hours (L+E+S) | 30+15+0 |

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| **1. GENERAL COURSE DESCRIPTION** |
| *1.1. Course Objectives*  |
| The main objective of the course is to enable students in applying methods for determining the existing and future demand for transport services. The acquired knowledge should be applied to real transport services and the results should be comprehensively analyzed for optimal and efficient decision-making. |
| *1.2. Prerequisites for Course Registration*  |
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| *1.3. Expected Learning Outcomes*  |
| After passing the exam, students will be able to do the following:1. Define the term of transportation supply and demand
2. Explain and examine the factors that affect the transport demand
3. Distinguish between qualitative and quantitative forecasting methods
4. Compare and consider the advantages and limitations of forecasting methods in a particular problem
5. Choose and apply a method or combination of methods to determine the transport demand
6. Evaluate current demand and predict the future transport demand (using computer support)
7. Explain the results obtained and discuss their application in a real business environment
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| *1.4. Course Outline*  |
| Defining the concept of transport supply and demand. Transport demand influencing factors. Role of model in forecasting transport demand. Applying qualitative and quantitative methods for forecasting transport demand. Demand estimation using regression analysis: model set up, data collection, determination of demand function form, testing the regression results. Usage of the appropriate software package. |
| *1.5. Modes of* *Instruction*  | [x] Lectures[ ]  Seminars and workshops [x]  Exercises [ ]  E-learning[ ]  Field work | [x]  Practical work [ ]  Multimedia and Network [x]  Laboratory[ ]  Mentorship[ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *1.6. Comments*  |       |
| *1.7. Student Obligations*  |
| Active class participation with at least 70% attendance. Creating work assignments during class. Tests for continuous monitoring and assessment including the final exam. |
| *1.8. Assessment1 of Learning Outcomes*  |
| Course attendance | 1.5 | Class participation |     | Seminar paper |     | Experiment |     |
| Written exam | 1 | Oral exam |     | Essay |     | Research |     |
| Project |     | Continuous Assessment | 2.5 | Presentation |     | Practical work |  |
| Portfolio |     |  |     |  |     |  |     |
| *1.9. Assessment of Learning Outcomes and Examples of Evaluation during Classes and on the Final Exam*  |
| *Evaluation procedure*: 70% of the grade through exams for students' continuous monitoring/assessment and 30% of the grade through final exam as follows:* continuous assessment through 2 exams and 2 test assignments
* final exam: checking the understanding of total acquired knowledge in the field of transportation demand forecasting methods and their application to specific transport or logistic problem.

*Examples for evaluation of learning outcomes*:1. define the term of transport supply and demand
2. sort and list the factors that affect the transport demand
3. list the basic features of qualitative and quantitative forecasting methods
4. explain where a transport forecasting method is applied in practice
5. design a practical case, describe the data collection method, set up the model and determine the appropriate solving method
6. based on the solution obtained, forecast the future transport demand for a certain period
7. justify the implementation of a forecasting method in practice
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| *1.10. Main Reading* |
| * Hess, S., Planiranje prometne potražnje, Sveučilište u Rijeci, Pomorski fakultet u Rijeci, Rijeka, 2010.
* Salvatore, D., Ekonomija za menadžere, McGraw-Hill Inc., MATE, Zagreb, 1994.
* Šošić, I., Serdar, V., Uvod u statistiku, Školska knjiga, Zagreb, 1997.
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| *1.11. Recommended Reading* |
| * Kmenta, J., Počela ekonometrije, MATE d.o.o., Zagreb, 1997.
* Jones, H., Twiss, B.C., Forecasting Technology for Planning Decisions, The Macmillan Press Ltd., 1980.
* Hanke, J.E., Reitsch, A. G., Understanding Business Statistics, Irwin, Boston, 1991.
* Statistical sources with current statistics on transportation, trade, goods flow, port traffic, etc. available on the following websites: https://www.wto.org; https://unctad.org; https://info.isl.org.;
* https://ec.europa.eu/eurostat/; https://www.dzs.hr. (…) and various transport companies' websites
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| *1.12. Number of Main Reading Examples*  |  |  |
| *Title*  | *Number of examples*  | *Number of students*  |
| Hess, S., Planiranje prometne potražnje, Sveučilište u Rijeci, Pomorski fakultet u Rijeci, Rijeka, 2010. | 5 | 55 |
| Salvatore, D., Ekonomija za menadžere, McGraw-Hill Inc., MATE, Zagreb, 1994. | 5 | 55 |
| Šošić, I., Serdar, V., Uvod u statistiku, Školska knjiga, Zagreb, 1997. | 5 | 55 |
| *1.13. Quality Assurance*  |
| The studying quality is monitored following the ISO 9001 system, as well as European standards and guidelines for quality assurance, carried out at the Faculty of Maritime Studies, University of Rijeka. Analysis of exam passing is done once a year, and once a semester a survey is conducted among students. |

1 **NOTE:** Name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course. Use empty fields for additional activities.