**Course description**

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| **Generic information** |
| Head of Course | PhD Svjetlana Hess |
| Course | Technological Processes in Transport |
| Study Programme | Technology and Organization of Transport |
| Type of Course | Mandatory |
| Year of Study | 1. |  |
| 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 to manage technological processes in transport through the adoption of terminology, defining operating parameters, their analytical calculations and capacity utilization. The above results in getting practically applicable knowledge and skills as a basis for planning and efficient organization of the technological process. |
| *1.2. Prerequisites for Course Registration*  |
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| *1.3. Expected Learning Outcomes*  |
| 1. establish and define the basic phases of a certain technological process (transport, loading, storage, transhipment, etc.)
2. define operational indicators of means of transport in road, rail, sea and air transport
3. explain the indicators of transport efficiency and the utilization of transport and transhipment capacities
4. interpret the load distribution diagram on the truck and calculate the axle loads
5. calculate transport performance, distance, time, speed, static and dynamic load, shift rate, utilization of capacity and of working time
6. independently analyze and interpret the results of key indicators of the technological process
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| *1.4. Course Outline*  |
| Truck performance indicators. Technical regulations, vehicle maintenance. Transport performance, capacity utilization. Load distribution on a truck and calculation of axle load. Planning the development and utilization of capacities in the port, ie the type and number of means of transport and transhipment. Norm of the port technological processes. Technological processes in railway transport. Wagon operation indicators by capacity and time. The technical power of the railroad. Freight air transport, means of transport. KPI. Analytical calculations. |
| *1.5. Modes of* *Instruction*  | [x] Lectures[ ]  Seminars and workshops [x]  Exercises [ ]  E-learning[ ]  Field work | [x]  Practical work [ ]  Multimedia and Network [ ]  Laboratory[ ]  Mentorship[ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *1.6. Comments*  |       |
| *1.7. Student Obligations*  |
| Colloquia and assignments, continuous assessment during classes and 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 is following:* 70% of the grade through exams for students' continuous assessment and 30% of the grade through final exam, ie:- continuous assessment during classes through 2 exams and 1 assignment and- with the final exam the understanding of total acquired knowledge in the field of technological processes is checked.*Valuation examples by individual learning outcomes:*1. explain the basic stages for the selected technological process2. define the performance indicators of means of transport in each branch of traffic3. explain the efficiency indicators of means of transport and explain how to express the utilization of transport, transhipment and infrastructure / suprastructural capacities4. interpret the load distribution diagram for a specific truck and calculate the axle load solve the transport problem using the appropriate quantitative method5. for given input data, calculate transport performance, path, time, speed, static and dynamic load, shift rate, utilization of capacity and working time6. specify and present key performance indicators for a particular technological process in transport |
| *1.10. Main Reading*  |  |  |
| * Lectures posted as teaching text on the website (Merlin)
* Baričević, H., Tehnologija kopnenog prometa, Pomorski fakultet u Rijeci, Rijeka, 2001.
* Dundović, Č., Tehnološki procesi u prometu, Sveučilište u Rijeci, Odjel za pomorstvo, Rijeka, 2001.
 |
| *1.11. Recommended Reading*  |  |  |
| * Županović, I., Ribarić, B., Organizacija i praćenje učinka cestovnih prijevoznih sredstava, Fakultet prometnih znanosti, Zagreb, 1993.
* Bogović, B., Organizacija željezničkog prometa, Fakultet prometnih znanosti, Zagreb, 1987.
* Radačić, Ž., Suić, I., Škurla Babić, R., Tehnologija zračnog prometa I, Fakultet prometnih znanosti, Zagreb, 2008.
 |
| *1.12. Number of Main Reading Examples*  |  |  |
| *Title*  | *Number of examples*  | *Number of students*  |
| Dundović, Č., Tehnološki procesi u prometu, Sveučilište u Rijeci, Odjel za pomorstvo, Rijeka, 2001. | 5 | 35 |
| Baričević, H., Tehnologija kopnenog prometa, Pomorski fakultet u Rijeci, Rijeka, 2001. | 5 | 35 |
| *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.