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| Study program: Mechanical engineering | | | |
| Type and level of studies: Bachelor studies | | | |
| Course unit: Fundamentals of Transport Systems | | | |
| Teacher in charge: dr. Goran Marković | | | |
| Language of instruction: English | | | |
| ECTS: 6 | | | |
| Prerequisites: None | | | |
| Semester: Autumn | | | |
| Course unit objective: Acquiring the necessary theoretical and practical knowledge in order to introduce with calculation and constructing elements of the transport system as necessary machines in the field of transport engineering and logistics. Getting to know the different types of devices of continuous transportation, work principles and their role in reloading-loading and manipulative works. | | | |
| Learning outcomes of the Course unit Capability to use the acquired theoretical knowledge in solving practical problems in the field of transport of fine grained, finely portions and portions material and design of the transportation systems device. | | | |
| Course unit contents <i>Theoretical classes</i> Introduction, classification, basic characteristics and application of transport systems. Belt conveyors. Constructive execution, budget and selection of basic elements. Plate conveyors. Mounting plate, traction elements, drive and tensioning device. Gravel trucks, types and budget. Hanging conveyors. Constructive performance. Elements of overhead conveyors, budget tightening and traction drive and a choice of engines. Types of construction and calculation elements of floor conveyors. Constructive and calculation execution unit of transportation systems without the traction element. Auxiliary plant transport systems. <i>Practical classes</i> Introducing the constructive solutions of transportation system devices. Showing principles and modes of operation on a laboratory plant. | | | |
| Literature Lawrence Shapiro and Jay Shapiro: Cranes and Derricks, Fourth Edition. McGraw-Hill Professional. 2010. 2. Patrick M McGuire: Conveyors: Application, Selection, and Integration (Industrial Innovation). CRC Press. 2009. | | | |
| Number of active teaching hours | | | Other classes |
| Lectures: 2 | Practice: 2 | Other forms of classes: 1 | |
| Teaching methods Lectures, multimedia presentations, review of design and calculation, and assignments and tests. Review of devices of real transportation system and the simulation work in the laboratory. | | | |
| Examination methods (maximum 100 points) | | | |
| Exam prerequisites | No. of points: | Final exam | No. of points: |
| Student's activity during lectures | 5 | oral examination | |
| practical classes/tests | 5 | written examination | 30 |
| Seminars/homework | 30 | | |
| Project | 30 | | |
| Other | | | |
| Grading system | | | |
| Grade | No. of points | Description | |
| 10 | 91-100 | Excellent | |
| 9 | 81-90 | Exceptionally good | |
| 8 | 71-80 | Very good | |
| 7 | 61-70 | Good | |
| 6 | 51-60 | Passing | |
| 5 | Less than 50 | Failing | |