Course Unit Descriptor

Study Programme: Mechanization And Construction Engineering
Course Unit Title: Material flows in intralogistics
Course Unit Code: M2503A
Name of Lecturer(s): Živanić Dragan
Type and Level of Studies: Master Academic Degree
Course Status (compulsory/elective): elective
Semester (winter/ summer): winter
Language of instruction: english
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 5
Prerequisites: none
Course Aims:. Acquiring knowledge in the field of transport processes and material flow and enabling operation automation transport system simulation
Learning Outcomes: Acquired knowledge can be used in practice for creating solution and main projects of complex automated transport systems as well as theoretical for professional subjects in the field of transport engineering and logistics.
Syllabus. Introduction. Material flow in production and distribution. Transport units. Storing and reloading. Fundamental elements in material flow. Border line cases. Stochastic transport units. Deviding and joining of flow characteristics. Universal element flow. Spacal arrangement of equipment – layout. Flow diagrams. Material flow models. Mechanisation and automation reload process. Transport systems. Characteristics, selection and dimensioningof transport systems. Transporters. Stopping, accumulation, joining and deviding devices. Flexible transport systems in production and distribution – equipment for commissioning. Automated transported line. Systems and devices for signalization, coding and labeling. Fundamentals of managing transport – manipulative systems. Modular projecting – composing transport systems.
Required Reading: Relevant literature in English TBD

Weekly Contact Hours: 2	**Lectures: 3**	**Practical work: 1**

Teaching Methods:
Lectures. Auditory and laboratory practical classes

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			