

Faculty of Mechanical Engineering / MECHANICAL ENGINEERING - Pljevlja / INLAND TRANSPORT

Course:	INLAND TRANSPORT			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
7528				
Programs	MECHANICAL ENGINEERING - Pljevlja			
Prerequisites	No			
Aims	Upon completion of this course, students are trained to know: Theoretical basics of pneumatic transport; Drive device EXTRACTION particles;Pneumatic transport devices;TESTING, ADJUSTMENT AND OPERATION UNIT pneumatic conveying			
Learning outcomes	Upon completion of this course, students are trained to know: Theoretical basics of pneumatic transport; Drive device EXTRACTION particles;Pneumatic transport devices;TESTING, ADJUSTMENT AND OPERATION UNIT pneumatic conveying			
Lecturer / Teaching assistant	Prof. dr Dečan Ivanović			
Methodology	Education and examples			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Theoretical basics of pneumatic transport: air flow through pipelines, Bernoulli's equation			
I week exercises	Examples:Theoretical basics of pneumatic transport: air flow through pipelines, Bernoulli's equation			
II week lectures	Pressure losses due to friction in the pipeline, friction coefficient, local resistance, the movement of air through the suction opening			
II week exercises	Examples:Pressure losses due to friction in the pipeline, friction coefficient, local resistance, the movement of air through the suction opening			
III week lectures	Calculation of the pipeline for flow of clean air. Calculation methods of dynamic pipeline pressures and equivalent aperture.			
III week exercises	Examples:Calculation of the pipeline for flow of clean air. Calculation methods of dynamic pipeline pressures and equivalent aperture.			
IV week lectures	Transporting the material in the air stream. The floating velocity. Concentration of the mixture. Losses of pressure when moving mixture.			
IV week exercises	Examples:Transporting the material in the air stream. The floating velocity. Concentration of the mixture. Losses of pressure when moving mixture.			
V week lectures	Drive device for particles EXTRACTION: Classification and construction equipment for particles extraction.			
V week exercises	Examples:Drive device for particles EXTRACTION: Classification and construction equipment for particles extraction.			
VI week lectures	Basic equipment unit or particles extraction and its aerodynamic characteristics. Pipelines, knees, bars, receivers			
VI week exercises	Examples:Basic equipment unit or particles extraction and its aerodynamic characteristics. Pipelines, knees, bars, receivers			
VII week lectures	Fans. Steam of partocles, sawdust and dust from the air.			
VII week exercises	Examples:Fans. Steam of partocles, sawdust and dust from the air.			
VIII week lectures	COLLOQUIUM I			
VIII week exercises	COLLOQUIUM I			
IX week lectures	Centrifugal separators. Scrubbers. Inertial separators. Filters.			
IX week exercises	Examples:Centrifugal separators. Scrubbers. Inertial separators. Filters.			
X week lectures	Design and calculation devices for particles extraction. Speed selection and the amount of air that is sucked through the receiver.			
X week exercises	Examples:Design and calculation devices for particles extraction. Speed selection and the amount of air that is sucked through the receiver.			

XI week lectures	TRANSPORT AIR DEVICES: The characteristics of the device and basic equipment. Pipelines, router, blowers, separators.					
XI week exercises	Examples:TRANSPORT AIR DEVICES: The characteristics of the device and basic equipment. Pipelines, router, blowers, separators.					
XII week lectures	Design and calculation of pneumatic transport equipment. Calculation of the thrust devices middle and high concentration.					
XII week exercises	Examples:Design and calculation of pneumatic transport equipment. Calculation of the thrust devices middle and high concentration.					
XIII week lectures	TESTING, ADJUSTMENT AND OPERATION UNIT of pneumatic transport: Measurement parameters of flow. Testing and exploitation of the device. Set up the device. The causes of malfunction, and particles extraction.					
XIII week exercises	Examples:TESTING, ADJUSTMENT AND OPERATION UNIT of pneumatic transport: Measurement parameters of flow. Testing and exploitation of the device. Set up the device. The causes of malfunction, and particles extraction.					
XIV week lectures	COLLOQUIUM II					
XIV week exercises	COLLOQUIUM II					
XV week lectures	FINAL EXAM					
XV week exercises	FINAL EXAM					
Student workload	Two hours of lectures and two hours exercises per a week.					
Per week			Per semester			
credits x 40/30=0 hours and 0 minuts 0 sat(a) theoretical classes 0 sat(a) practical classes 0 excercises 0 hour(s) i 0 minuts of independent work, including consultations			Classes and final exam: 0 hour(s) i 0 minuts x 16 =0 hour(s) i 0 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 0 hour(s) i 0 minuts x 2 =0 hour(s) i 0 minuts Total workload for the subject: x 30=0 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 0 hour(s) i 0 minuts Workload structure: 0 hour(s) i 0 minuts (cources), 0 hour(s) i 0 minuts (preparation), 0 hour(s) i 0 minuts (additional work)			
Student obligations			Students should attend lectures and exercises, and for that they will have a points			
Consultations			Consultation with students performed Wednesdays, Thursdays and Fridays			
Literature			1. S. J. SVJATKOV, Pneumatski transport usitnjenog drveta, Zavod za tehnologiju drveta, Sarajevo, 1969. 2.M. ŠAŠIĆ. Transport fluida i čvrstih materijala cijevima, Naučna knjiga,			
Examination methods			Two tests of 50% and final exam 50%. Marks are: A (91-100%), B (81-90%), C (71-80%), D (61-70%) and E (51-60%)			
Special remarks						
Comment						
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points