

UNEVERSITY OF EAST SARAJEVO

Faculty of Mechanical Engineering

Study program: Mechanical Engineering

1ST LEVEL OF STUDIES 3rd YEAR

Course title Power transmission Department Department of Mechanical constructions and Engineering Design

Code	Course status	Semester	ECTS	
МАФ-1-1-MC-06-1-079-5-6-3-1.5-0.5	Mandatory	ļ	6	
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Professor PhD Miroslav Milutinovic, assistant professor Teaching assistant M. Sc. Aleksija Đurić - teaching assistant

Numl	Number of hours (per week) Individual			tudent workload semester)	Coefficient of student workload S _o	
L	E	LE	L	E	LE	S₀
3	1.5	0.5	3*15*S ₀	1.5*15*S₀	0.5*15*S _o	1.4

Total total teaching hours in semester Total student's workload (in hours in semester) 3*15 + 1.5*15 + 0.5*15 = 75 hours $3*15*S_o + 1.5*15*S_o + 0.5*15*S_o = 105 \text{ hours}$

Total course workload: 75 + 105 = 180 hours in semester

Student learning objectives

In addition to acquiring basic knowledge in the field of power transmissions, a student who passes this course will be able to form variant solutions of transmissions according to the requirements of a specific task, select transmissions according to given criteria, determine kinematic size and determine calculation the parts of transmissions elements.

Conditionality Teaching methods

Content of the

course by weeks

No conditioning

Lectures, auditory and laboratory exercises

- 1. The basic concepts and definitions. Types of drives and operation machines. Types of working
- 2. Classification, characteristics and application of power transmission. Connecting the power transmission to the drive and working machine.
- 3. Friction power transmissions
- 4. Variators
- 5. Belt Drive Power Transmission
- 6. Power transmission chain.
- 7. Gearboxes.
- 8. Planetary gearbox.
- 9. Construction of planetary gearbox
- 10. Differential gearbox.
- 11. Gearboxes on motor vehicles.
- 12. Power flow diagrams for different types of gearboxes on motor vehicles.
- 13. Machine tool gearbox.
- 14. Hydraulic transmissions
- 15. Hydrodynamic transmission

Required literature				
Authors	Name of the publication, publisher	Year	Pages	
M.Milutinovic	Authorized presentations			
Stokes	Manual gearbox design	1992		
Giesbert Lechner,	Automotive Transmissions: Fundamentals,	1999		
	Selection, Design and Application			
Additional literature				

Authors		Name of the publication, publisher Year				Pages	
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	Type of student evaluation			Point	S	Percentage	
OLU: A CARA							
Obligations,		attendance at lectures / exe	rcises	5	5	5%	

Obligations, forms of knowledge check and assessment			
	attendance at lectures / exercises	5	5%
	Colloquium I and II + Written exam	40	40%
	Project task	15	15%
	final exam (oral / written)	40	40%
	Total	100	100 %
Web page		•	

Date of	
certification	