

Óbuda University, Donát Bánki Faculty of Mechanical and Safety Engineering		Institute for Natural Sciences and Basic Subjects (TAI)	
Name and code of the subject: Machine Design III. (English course) <i>BBWGGE6BNE</i> Credits: 2			
Faculty: Mechatronics			
Course leader:	Dr. Tibor J. Goda	Lecturer:	Dr. Tibor J. Goda
Prestudy conditions (code)	Machine Design I. and Machine Design II.		
Weekly teaching hours:	Lecture: 2	Classroom practice.: -	Lab: 2
Type of exam:	exam		
Curriculum			
The objective of the course: The students study the basic knowledge of mechanical drives and driving systems. The main topics: electric motors, rolling bearings, rolling bearing arrangements, flat belt drives, V-belt drives, friction drives, spur gears and helical gears, gear boxes.			
Schedule and requirements			
Educational week	Lectures		
1.	Fundamentals of driving systems. Mechanical drives.		
2.	Rolling bearings		
3.	Rolling bearing arrangements.		
4.	Rolling bearing arrangements.		
5.	Flat belt drives.		
6.	Flat belt drives.		
7.	1st Mid-semester test (max. 25 points)		
8.	Rector break (NO TEACHING)		
9.	V-belt drives.		
10.	Spur gears. Helical gears.		
11.	Tooth forces.		
12.	Gear boxes.		
13.	2nd Mid-semester test (max. 25 points)		
14.	Summary		
Tasks in the semester			
Week	Mid-semester tests		
7.	1 st mid-semester test		
13.	2 nd mid-semester test		
Writing examination in the examination period			
Writing examination (max. 50 points)			
Conditions for the signature:			
Students must participate in at least 70% of all classes. Otherwise, the semester is invalid. To get signature, more than 25 points (from the two mid-semester tests) are needed. The examination is available for students with signature only.			
Examination: writing exam (max. 50 points). The final grade will be established based on the total number of points collected. Grading policy: 0-50 points: fail (1); 51-62 points: pass (2); 63-74 points: satisfactory (3); 75-86 points: good (4), 87-100 points: excellent (5).			
Bibliography:			
Own lecture notes; Materials available in Moodle Dr. Elinger, I.- Dr. Goda, T.: Engineering Design (Theory and practice) BMF BGK 3022 (2006) Juvinal R.C.; Marshek K.M.: Machine component design; John Wiley & Sons (2012)			
The quality control methods of subject: feedback by the quality control meeting of students and teachers			

1st of February, 2024

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Course leader