

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Theory of Working Machines</b>		Code <b>1010614151010610241</b>
Field of study <b>Mechanika i budowa maszyn</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>3 / 5</b>
Elective path/specialty <b>Maszyny robocze</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>First-cycle studies</b>	Form of study (full-time, part-time) <b>part-time</b>	
No. of hours Lecture: <b>20</b> Classes: <b>-</b> Laboratory: <b>12</b> Project/seminars: <b>-</b>		No. of credits <b>4</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art <b>technical sciences</b>		ECTS distribution (number and %) <b>4 100%</b>
<b>Responsible for subject / lecturer:</b> Przemysław TYCZEWSKI Ph.D. (Eng.) email: przemyslaw.tyczewski@put.poznan.pl tel. 61 665 2655 Faculty of Machines and Transport ul Piotrowo 3		<b>Responsible for subject / lecturer:</b> Karolina PERZ, Ph.D. (Eng.) email: karolina.perz@put.poznan.pl tel. 61 665 2391 Faculty of Machines and Transport ul. Piotrowo 3
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Student has a basic knowledge about the mechanics, machines construction bases, machines theory, thermodynamics
2	<b>Skills</b>	Student can draw a machine scheme. Can do basic calculations of the main elements and assemblies of the machine, i.e. shafts, bearings, couplings, brakes and transmissions
3	<b>Social competencies</b>	Student is aware of the importance of the responsibility for his own activities, he understands their general aspects and consequences
<b>Assumptions and objectives of the course:</b> Cognition of the basic machines and devices used in the food industry		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
1. Has an expanded knowledge necessary for understanding specialized subjects and expertise in construction, design and manufacturing methods and operation of a selected group of machines, in particular: food industry machines and equipment - [K1A_W24]		
<b>Skills:</b>		
1. Is able to competently advise in the selection of equipment for a given application in the industry covered by chosen specialization, based on the acquired knowledge about an equipment group - [K1A_U25]		
<b>Social competencies:</b>		
1. Has a sense of responsibility for one's own work and is willing to comply with the principles of teamwork and taking responsibility for collaborative tasks - [K1A_K02]		
<b>Assessment methods of study outcomes</b>		
Written examination (lectures); current control of the preparation to the laboratory; evaluation of the laboratory process		
<b>Course description</b>		
Systematics of the food industry machines and devices, including mechanical, thermo-diffusive and packaging processes. Allocation and application of the food industry machines and devices. Structure (main assemblies), principles of operation, schemes, technical characteristics of the food industry machines and devices.		

<b>Basic bibliography:</b>		
<b>Additional bibliography:</b>		
<b>Result of average student's workload</b>		
<b>Activity</b>	<b>Time (working hours)</b>	
1. Presence at the lectures tory	30	
2. Preparation to the labora	12	
3. Presence at the laboratory	15	
4. Knowledge fixation, laboratory report	12	
5. Preparation to laboratory pass	4	
6. Presence at the laboratory pass	1	
7. Consultations	5	
8. Preparation to the exam	14	
9. Presence at the exam	2	
<b>Student's workload</b>		
<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	95	4
Contact hours	53	2
Practical activities	15	0