

MODUL	FOOD 1W.1	COURSE TITLE	Computerized ontrol system in food technology		ECTS	2
FACULTY COORDINATOR		prof.dr hab. Z.Krejpcio	DEPARTMENT	Faculty of Food Science and Nutrition		
TEACHER			dr hab.inż. A. Ryniecki, prof. nadzw.			
VOLUME (H)	10			PERSONAL WORK (H)	40	
LECTURE (H)	LAB (H)	PLACEMENT (H)	PROJECT (H)	OTHER MODALITIES (H)		
10						
EVALUATION			TEACHING METHODS			
EVALUATION MODALITES			Lectures			
ORAL INDIVIDUAL REPORT						
WRITEN INDYVIDUAL REPORT						
FINAL ORAL EXAM						
FINAL WRITTEN EXAM						
COMMENTS OF EVALUATION						
SEMESTER (WINTER/SUMMER)			LANGUAGE			
winter			ENGLISH			
<b>OBJECTIVES</b>						
AUTOMATIC CONTROL OF UNIT OPERATIONS IN FOOD TECHNOLOGY: SELECTED PROBLEMS AND SOLUTIONS						
<b>CONTENTS</b>						
1. Control Systems – Basics, Part 1 (Open- and closed-loop control; On-Off control). 2. Model Based Control System Using On-Off Output (Development of computerized control system for cooling seeds in bulk). 3. Compoterized Control of Thermal Processing (Feed-back control vs feed-forward control; Computerized control of bacterial inactivation) 4. Control Systems-Basics, Part 2 (P-proportional control action; PI - proportional-integral action; PID - proportional-integral-derivative control) 5. Computerized Control of Drying Processes (Development of computerized control system of drying porous materials in buk) 6. Process control in Food Industry: Problems & Solutions						
<b>PRE-REQUISES</b>						