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| FACULTY: | Faculty of Mechanical Engineering and Energetics |
| FIELD OF STUDY: | Food Technology and Human Nutrition |
| ERASMUS COORDINATOR OF THE FACULTY: | Agnieszka Szparaga, PhD, DSc, Eng |
| E-MAIL ADDRESS OF THE COORDINATOR: | Agnieszka.szparaga@tu.koszalin.pl |
| COURSE TITLE: | **Cleaning Processes in Food Production** |
| LECTURER’S NAME: | Joanna Piepiórka-Stepuk, PhD, DSc, Eng. |
| E-MAIL ADDRESS OF THE LECTURER: | joanna.piepiorka@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 1 |
| COURSE CODE (USOS): | 0811>2000-HiBPŻ (Lec); 0811>2000- HiBPŻ -lab |
| ACADEMIC YEAR: | 2024/2025 |
| SEMESTER: (W – winter, S – summer) | S |
| HOURS IN SEMESTER: | W (15h) + GT (15h) |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lecture, Group tutorials |
| LANGUAGE OF INSTRUCTION: | * **English full time scheme for classes with 5 and more International Erasmus+ students enrolled/accepted;** * **English 50% individually with the teacher + Polish 50% with Polish students or individual project work- scheme for classes with less than 5 International Erasmus+ students enrolled/ accepted;** |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | (L) Written test,  (GT) Written reports, project work |
| COURSE CONTENT: | **Lecture**  1. Introductory information - Codex Alimentarius(1h)  2. Sediments and fouling in food industry(1h)  3. Workplace plan of cleaning and disinfection, documentation, responsibility(2h)  4. Types of cleaned surfaces in food industry plants(1h)  5. The process of cleaning and disinfection - the basics, stages (1h)  7. Factors affected on the effectiveness of the cleaning process (1h)  8. Cleaning method and disinfection(6h):  Hand cleaning, Foam cleaning, Chamber cleaning, Bubbling and ultrasonic cleaning, Cleaning in CIP system, High pressure cleaning, Other cleaning method (hand, immersion, spray)  9. Water and chemistry detergents and disinfectants used to clean(1h)  10. Assessments of cleanliness(1h)  **Group tutorials**  laboratory and calculation exercises  1. Influence of cleaning factors in different cleaning method  2. Development of cleaning program for one's chosen device used in food production (from any branch, for example - plate heat exchanger after milk pasteurization) |
| ADDITIONAL INFORMATION: | Reference list (selected):   1. LelieveldH.L.M.; Mostert, M.A.; Holah, J.; White, B. 2003. Higiene in food processing. Woodhead publishing limited, England, pp. 197–230; 2. Tamime A., 2008. Cleaning in Place Dairy, Food and Beverage Operations. Blackwell Publishing Ltd; 3. Kanegsberg B., Kanegsberg E., 2001. Hanbook for critical cleaning. CRC Press; 4. Article from this topic |

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