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| FACULTY: | Faculty of Mechanical Engineering |
| FIELD OF STUDY: | Food Technology and Human Nutrition |
| ERASMUS COORDINATOR OF THE FACULTY: | Małgorzata Smuga-Kogut, PhD |
| E-MAIL ADDRESS OF THE COORDINATOR: | malgorzata.smuga-kogut@tu.koszalin.pl |
| COURSE TITLE: | Food Process Engineering |
| LECTURER’S NAME: | Marek Jakubowski, PhD, DSc, Eng. |
| E-MAIL ADDRESS OF THE LECTURER: | marek.jakubowski@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 5.0 |
| ACADEMIC YEAR: | 2021/2022 |
| SEMESTER:  (W – winter, S – summer) | W |
| HOURS IN SEMESTER: | 30+15+30 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lecture, seminar, laboratory |
| LANGUAGE OF INSTRUCTION: | English |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | Written exam, then oral checking level of knowledge (on the base of prepared test). |
| COURSE CONTENT: | Introduction, Postharvest handling and preparation of foods for processing, Physical properties of foods, Thermal processing, Nonthermal processing of food, Evaporation and dehydration, Freezing, Draying, Separations in food processing, Size reduction and agglomeration in food engineering, Process control in food processing, Mixing in food engineering, Fermentation processes engineering, Water and waste treatment, CFD applications in food processing, Food process design, Scale-up in food processing |
| ADDITIONAL INFORMATION: | Reference list (selected):  D. R. Heldman, D. B. Lund, Ch. Sabliov, S. Devahastin, Handbook of Food Engineering, Second Edition, CRC, 2006;  Physicochemical Aspects of Food Engineering and Processing, CRC, 2011;  J. G. Brennan, A. S. Grandison: Food Processing Handbook, Wiley, 2012;  J. Ahmed, M. S. Rahman: Handbook of Food Process Design, Wiley, 2012;  C. R. Soccol, A. Pandey, C. Larroche: Fermentation processes engineering in the food industry, CRC, 2013;  C. Anandharamakrishnan: Computational Fluid Dynamics Applications in Food Processing, Springer, 2013;  R. P. Singh, D. R. Heldman, Introduction to Food Engineering Elsevier, 2013; |

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