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| FACULTY: | Faculty of Mechanical and Energy Engineering |
| 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: | **Biotechnology** |
| LECTURER’S NAME: | Małgorzata Smuga-Kogut, PhD, DSc, Eng |
| E-MAIL ADDRESS OF THE LECTURER: | malgorzata.smuga-kogut@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 4 |
| COURSE CODE (USOS): | 0811>2000-PBio (Lec); 0811>2000- PBio -lab |
| ACADEMIC YEAR: | 2025/2026 |
| SEMESTER:  (W – winter, S – summer) | S |
| HOURS IN SEMESTER: | 30+30 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | lecture, laboratory |
| 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?) | written exam or oral exam |
| COURSE CONTENT: | * The most important aspects of biotechnology in a historical context and perspective. * Economic, social and environmental problems, ethics problems in biotechnology. * Sections of biotechnology, basics of biotechnology processes. * Bacterial cultures and fungal starters in the food industry , food ProBiotics. * Biotechnology methods of obtaining food cultures in vitro. * Haploid and hybrid forms used in food biotechnology. * Modern methods of biotechnology DNA. * Transgenic food using biotechnology techniques. * Biotechnological food analysis by PCR methods. * The methods of biotechnology utilization of waste fats , biofuels. |
| ADDITIONAL INFORMATION: |  |

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