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| FACULTY: | **Faculty of Mechanical Engineering**  Department of Biomedical Engineering |
| FIELD OF STUDY: | **Biomedical Engineering** |
| ERASMUS COORDINATOR OF THE FACULTY: | Igor Maciejewski, DSc, PhD |
| E-MAIL ADDRESS OF THE COORDINATOR: | [igor.maciejewski@tu.koszalin.pl](mailto:igor.maciejewski@tu.koszalin.pl) |
| COURSE TITLE: | **Microbiology** |
| LECTURER’S NAME: | Ewa Czerwińska, PhD. |
| E-MAIL ADDRESS OF THE LECTURER: | [ewa.czerwinska@tu.koszalin.pl](mailto:ewa.czerwinska@tu.koszalin.pl) |
| ECTS POINTS FOR THE COURSE:  COURSE CODE (USOS): | 5 0911>1000-MBzEBM |
| ACADEMIC YEAR: | 2022/2023 |
| SEMESTER:  (W – winter, S – summer) | W |
| HOURS IN SEMESTER: | 60 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lecture (30h) + Laboratory (30h) |
| LANGUAGE OF INSTRUCTION: | English |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | Written exam/ Written report |
| COURSE CONTENT: | The student learns the rules of working with microorganisms, their characteristics, gets to know the elements of molecular biology in the context of working with microorganisms. The program content covers the general characteristics of microorganisms (Virales, Bacteria, Fungi, Protista); taking into account their size, cell structure and colony morphology, the function of individual cell organelles, growth and development, methods of reproduction; with the influence of physico-chemical and biological environmental factors on microorganisms in the aspect of cell reaction and molecular biology, characteristics of work techniques: microscopic methods of observation of living microorganisms: culturing microorganisms, preparing culture media, isolating microorganisms from the environment; techniques of obtaining pure cultures, staining of microorganisms and their structures, detection of inclusions, counting of microorganisms. |
| ADDITIONAL INFORMATION: | Students should have knowledge of biology and chemistry at the basic level. |