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| FACULTY: | **Faculty of Mechanical Engineering** |
| FIELD OF STUDY: | **Biomedical Engineering** |
| ERASMUS COORDINATOR OF THE FACULTY: | Igor Maciejewski |
| E-MAIL ADDRESS OF THE COORDINATOR: | igor.maciejewski@tu.koszalin.pl |
| COURSE TITLE: | **Material engineering laboratory** |
| LECTURER’S NAME: | Mieczysław Pancielejko, PhD Eng |
| E-MAIL ADDRESS OF THE LECTURER: | mieczyslaw.pancielejko@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 3 |
| ACADEMIC YEAR: | 2023/2024 |
| SEMESTER:  (W – winter, S – summer) | S |
| HOURS IN SEMESTER: | 30 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Laboratory (30h) |
| LANGUAGE OF INSTRUCTION: | English, Polish, (separate group with English depends from number of the incoming students) |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | Written reports/presentation |
| COURSE CONTENT: | Macroscopic metallographic testing. Methodology of microscopic metallographic research. Hardness measurements of metal, ceramic and polymer materials. Plastic deformation and recrystallization of metals and alloys. Cast irons. Carbon steels. Heat treatment of structural steels. Alloy steels. Copper alloys, aluminum alloys and bearing alloys. Microstructure studies of metallic biomaterials. Study of mechanical properties of polymers. Study of mechanical properties of ceramic materials. |
| ADDITIONAL INFORMATION: | Students should have basic knowledge about material engineering from previous courses  Code: 0911>1000-LIM |