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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](mailto:igor.maciejewski@tu.koszalin.pl) |
| COURSE TITLE: | **Material engineering laboratory** |
| LECTURER’S NAME: | Katarzyna Mydłowska, MSc. Eng./Mieczysław Pancielejko, PhD Eng |
| E-MAIL ADDRESS OF THE LECTURER: | [katarzyna.mydlowska@tu.koszalin.pl](mailto:katarzyna.mydlowska@tu.koszalin.pl)  [mieczyslaw.pancielejko@tu.koszalin.pl](mailto:mieczyslaw.pancielejko@tu.koszalin.pl) |
| ECTS POINTS FOR THE COURSE:  COURSE CODE (USOS): | 3 0911>1000-LIM |
| ACADEMIC YEAR: | 2022/2023 |
| 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 |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | Written reports |
| COURSE CONTENT: | The laboratory exercises include: Hardness measurements of metal, ceramic and polymer materials. Test of mechanical bending and tensile strength of bio-porcelain. Determination of Young's modulus of selected bio-materials. Determination of fracture toughness and hardness of alumina ceramics, bio-glasses and denitrifying glasses. Synthesis of polymeric materials with the participation of an aqueous solution of sodium silicate and polysaccharides. |
| ADDITIONAL INFORMATION: | Students should have basic knowledge about material engineering from previous courses |