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| FACULTY: | **Faculty of Mechanical and Energy 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 |
| COURSE TITLE: | **Basics of artificial intelligence** |
| LECTURER’S NAME: | Zbigniew Suszyński, Prof. |
| E-MAIL ADDRESS OF THE LECTURER: | zbigniew.suszynski@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 2 |
| ACADEMIC YEAR: | 2024/2025 |
| SEMESTER: (W – winter, S – summer) | W |
| HOURS IN SEMESTER: | 15 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lectures 15h |
| 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 |
| COURSE CONTENT: | As part of the course, students learn the basic algorithms and methods of artificial intelligence and the scope of application of artificial intelligence in manufacturing, robotics and equipment and medical diagnostics. In particular, they will learn about the structure and principles of operation of artificial neural networks and algorithms neuron learning and supervised and unsupervised network learning, examples of ANN applications, structure and inference principle expert systems, agent systems, genetic and evolutionary algorithms, search methods, methods pattern recognition. |
| ADDITIONAL INFORMATION: | Basic chemistry, physics, mathematics courses completed. Knowledge of basic issues in IT, physics, chemistry and mathematics describing the state of matter.  Code: 0911>1000-PSI |