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| FACULTY: | Department of Mechanical Engineering |
| FIELD OF STUDY: | Mechanics and Machine Building |
| ERASMUS COORDINATOR OF THE  FACULTY: | Dr hab. inż. Agnieszka Kułakowska, Prof. PK |
| E-MAIL ADDRESS OF THE  COORDINATOR: | [agnieszka.kulakowska@tu.koszalin.pl](mailto:agnieszka.kulakowska@tu.koszalin.pl) |
| COURSE TITLE: | Technical mechanics 2 |
| LECTURER’S NAME: | Dr hab. inż. Łukasz Bohdal, Prof. PK |
| E-MAIL ADDRESS OF THE LECTURER: | [lukasz.bohdal@tu.koszalin.pl](mailto:lukasz.bohdal@tu.koszalin.pl) |
| COURSE CODE (USOS): | 9 |
| ECTS POINTS FOR THE COURSE: | 3 ECTS |
| ACADEMIC YEAR: | 2023/2024 |
| SEMESTER:  (W – winter, S – summer) | W |
| HOURS IN SEMESTER: | 15 + 15 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st cycle |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lecture + practice |
| LANGUAGE OF INSTRUCTION: | English, Polish, (separate group with English as leading language depends from the incomings number) |
| ASSESSMENT METOD:  (written exam, oral exam, class test, written  reports, project work, presentation, continuous assessment, other – what type?) | Written exam |
| COURSE CONTENT: | Kinematics of a particle, description of the motion, uniform motion, Rectilinear uniform motion, Rectilinear motion of a variable, Movement of uniformly accelerated, The definition of acceleration, Route, speed and acceleration in linear motion, Uniform circular motion - centripetal acceleration, The kinetic energy of linear motion  Special Theory of Relativity, The experiment of Michelson and Morley, The postulates of special relativity Simultaneity and shorten the time interval  Relativistic addition of velocities, Shortening the episode in motion, Relativistic mass and relativistic momentum.  The relationship between the momentum and energy, Parallelogram rule of addition of vectors, friction, the principles of dynamics, the momentum of the body, The principle of conservation of momentum, The law of universal gravitation, Dynamics of the traversing motion of a material point in the circle and rotary motion of a rigid  body |
| ADDITIONAL INFORMATION: |  |

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