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| FACULTY: | Faculty of Mechanical and Energy Engineering |
| FIELD OF STUDY: | Energetics |
| ERASMUS COORDINATOR OF THE FACULTY: | Łukasz Bohdal, PhD, DSc, Eng |
| E-MAIL ADDRESS OF THE COORDINATOR: | Lukasz.bohdal@tu.koszalin.pl |
| COURSE TITLE: | **Heat Exchangers** |
| LECTURER’S NAME: | Marcin Kruzel, PhD, DSc, Eng |
| E-MAIL ADDRESS OF THE LECTURER: | marcin.kruzel@tu.koszalin.pl |
| ECTS POINTS FOR THE COURSE: | 2 |
| COURSE CODE (USOS): |  |
| ACADEMIC YEAR: | 2025/2026 |
| SEMESTER:  (W – winter, S – summer) | S |
| HOURS IN SEMESTER: | 15 |
| LEVEL OF THE COURSE:  (1st cycle, 2nd cycle, 3rd cycle) | 1st |
| TEACHING METHOD:  (lecture, laboratory, group tutorials, seminar, other-what type?) | Lecture |
| 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 METHOD:  (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?) | written exam |
| COURSE CONTENT: | 1. Introduction 2. Relation of heat transfer to thermodynamic 3. Modes of heat transfer 4. Local heat transfer coefficient 5. Overall heat transfer coefficient 6. Heat exchanger design 7. Heat exchanger effectiveness 8. Fin design 9. Convective heat transfer 10. Natural convection 11. Forced convection 12. Condensation heat transfer 13. Evaporation heat transfer 14. Heat transfer performance 15. Pressure drop |
| ADDITIONAL INFORMATION: | The course provides theoretical knowledge of heat exchanger design |

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