**Course Syllabus**

Academic year: 2020-2021

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| Institution | University of Petroşani |
| Faculty | Mechanical and Electrical Engineering |
| Field of study | TRANSPORT ENGINEERING |
| Level | Bachelor |
| Program of study | TRANSPORT AND TRAFFIC ENGINEERING |

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| Course | **Thermotechnics and thermal machines** |
| Code | 2TT3OD17 |
| Year of study (semester) | II (II) |
| Number of hours | 56 |
| Number of credits | 4 |
| Professor | Prof. Ph.D. PETRILEAN Dan Codrut |

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| **No.** | **Topic** |
|  | Thermodynamic states and processes. Perfect gas |
|  | The perfect gas mixture |
|  | Thermodynamic system interaction |
|  | The first principle of thermodynamics |
|  | Perfect gas state transformations |
|  | The second principle of thermodynamics |
|  | Combustion of fuels |
|  | Steam |
|  | The humid air |
|  | Steam thermal machines |
|  | Internal combustion piston engines |
|  | Compressors |
|  | Compressive fluid dynamics |
|  | Gas turbine installations |