**Course Syllabus**

Academic year: 2020-2021

|  |  |
| --- | --- |
| Institution | University of Petroşani |
| Faculty | Mechanical and Electrical Engineering |
| Field of study | Electrical Engineering |
| Level | Bachelor |
| Program of study | Electromechanics |

|  |  |
| --- | --- |
| Course | **Electrothermics** |
| Code | 2EE7AS53 |
| Year of study (semester) | IV (I) |
| Number of hours | 42 |
| Number of credits | 3 |
| Professor | Prof., Ph.D. ARAD Susana |

|  |  |
| --- | --- |
| **No.** | **Topic** |
|  | Energy indicators of electrothermal installations |
|  | Heat transfer in electrothermal installations: conduction, convection and radiation |
|  | Heating systems with electric resistors. Direct and indirect action ovens. |
|  | Electric heating installations. Phenomena and processes arc ovens. |
|  | Capacitive heating installations. Microwave installations. |
|  | Induction heating systems. |
|  | Welding of metals. Electric arc welding. Ultrasonic welding. |