**Course Syllabus**

Academic year: 2020-2021

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

|  |  |
| --- | --- |
| Course | **Use of electricity** |
| Code | 2EE8AS60 |
| Year of study (semester) | IV (II) |
| Number of hours | 42 |
| Number of credits | 3 |
| Professor | Associate Professor Ph.D. Dragoș PĂSCULESCU |

|  |  |
| --- | --- |
| **No.** | **Topic** |
|  | Introductory notions. Matter and energy, Einstein's relationship, conservation and conversion of energy, sources and uses, thermodynamic aspects |
|  | Hydrogen the energy vector of the 21st century. Hydrogen production, storage and transport. Conversion of hydrogen to thermal energy |
|  | Energy subsystem of heat supply |
|  | General structure and principle diagrams of thermal power plants (TP) |
|  | General structure and principle diagrams of cogeneration plants (CGP) |
|  | General structure and principle diagrams of trigeneration plants (TGP) |
|  | Thermal load of the heat supply system (HHS) |