**Course Syllabus**

Academic year: 2020-2021

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| Institution | University of Petroşani |
| Faculty | Mechanical and Electrical Engineering |
| Field of study | Power Engineering |
| Level | Bachelor |
| Program of study | Industrial Power Engineering |

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| Course | **Electrical Section of Power Plants and Stations I** |
| Code | 2II5OD41 |
| Year of study (semester) | III (I) |
| Number of hours | 42 |
| Number of credits | 4 |
| Professor | Assoc. Prof., Ph.D. PASCULESCU Dragos |

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| **No.** | **Topic** |
|  | Power plants. The role of the electrical part. |
|  | Description of the main electrical systems’ function, of its own services and the components of each system. |
|  | Encapsulated bars. Single-phase encapsulated bars. Three-phase encapsulated bars. |
|  | The main power transformer. Auxiliary transformer for internal services. High voltage dischargers. |
|  | The main high-voltage circuit breaker. Line separator with grounding knives. Current and voltage transformer on the high voltage side |
|  | Power stations for own consumption. Medium voltage station for own consumption. Low voltage power stations (400V) |
|  | Direct current system |
|  | Safety power supplies. Diesel Group. Uninterruptible (independent) power supply. Synchronization system |