**Course Syllabus**

Academic year: 2020-2021

|  |  |
| --- | --- |
| Institution | University of Petroşani |
| Faculty | Mechanical and Electric Engineering  |
| Field of study | Electrical Engineering |
| Level | Master |
| Program of study | Electromechanical Systems |

|  |  |
| --- | --- |
| Course | **Maintenance and Monitoring of Industrial Electrical Equipment** |
| Code | 2MSEAS09 |
| Year of study (semester) | I (II) |
| Number of hours | 70 |
| Number of credits | 6 |
| Professor | Professor Ph.D. Ion FOTĂU |

|  |  |
| --- | --- |
| **No.** | **Topic** |
|  | General aspects regarding the maintenance of the equipment General notions. Maintenance and repair systems. Repair regulations. Repair of parts. Parts reconditioning. |
|  | Maintenance and repair of electrical equipment. Technical characteristics of electrical equipment. Maintenance and repair of low voltage circuit breakers. Maintenance and repair of switching and control equipment. Maintenance and repair of protection and signaling equipment. |
|  | The influence of some factors on the characteristics of the electrical equipment. Installation of electrical equipment and cables in control diagrams. Checking and controlling electrical equipment repairs. |
|  | Maintenance and repair of power transformers. Commissioning of transformers. Operation of transformers. Transformer maintenance. Oil cleaning and regeneration. Defects and abnormal operating regimes, their causes and their remedy. |
|  | Commissioning and maintenance of rotary electric machines.Commissioning and maintenance of asynchronous electric motors.Commissioning and maintenance of synchronous electric motors.Commissioning and maintenance of direct current electric motors. |
|  | Repair of rotating electric machines. General. Defects. The process of repairing rotating electric machines. Disassembly of electric machines. Repair of electric cars. Installation and commissioning after repair. |
|  | Technology for maintenance and repair of machine tool electrical installations.Electric machine tool controllers. Maintenance and repair of machine tool electrical installations. Maintenance and repair of electrical control devices. |
|  | Maintenance and repair of pumps, compressors and fans. General. Classification. Maintenance and repair of pumping, ventilation and air compressor installations, Repair of electrical equipment related to pumps, fans and air compressors. |