**Course Syllabus**

Academic year: 2020-2021

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| Institution | University of Petroşani |
| Faculty | Mechanical And Electrical Engineering Faculty |
| Field of study | Systems Engineering |
| Level | Master |
| Program of study | Systems and Information Technology |

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| Course | **Modeling of complex systems** |
| Code | 2STI1OD05 |
| Year of study (semester) | I (I) |
| Number of hours | 84 |
| Number of credits | 7 |
| Professor | Assoc. prof. dr. eng. Stoicuta Olimpiu-Costinel |

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| **No.** | **Topic** |
|  | The structure of linear multivariable systems. |
|  | The structure of nonlinear multivariable systems. |
|  | Examples of multivariable systems in the energy industry. |
|  | Examples of multivariable systems in the field of electric drives. |
|  | Mathematical modeling of nonlinear systems. |
|  | Modeling systems using neural networks. |